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Guest Editorial

Vitamin K

THE historical development of vitamin K has been recounted so frequently that nearly every physician is well acquainted with the story. In less than five years after vitamin K was discovered, its value as well as its limitation was definitely established. Its first and probably most important therapeutic use is in the prevention and cure of the bleeding in obstructive jaundice. Since the hypoprothrombinemia in this condition is due to inadequate absorption of vitamin K because of the absence of bile in the intestines, bile salts must be administered with vitamin K if the latter is given orally.

The second important use of vitamin K is as a prophylactic against bleeding in the newborn infant. Nearly all babies have a brief period of prothrombinopenia soon after birth, but only in a small percentage does this lead to a serious hemorrhagic condition. The potential danger is nevertheless present and to eliminate this hazard the administration of vitamin K, either to the mother shortly before parturition, or to the baby soon after birth, is definitely indicated.

Several other conditions are benefited by vitamin K. Prothrombin synthesis is markedly reduced after severe liver injury, and in some instances, notably in acute yellow atrophy, this may cause a serious hemorrhagic tendency. Vitamin K together with means to restore liver function is the only rational therapy. Any condition such as sprue or biliary fistula which interferes with the absorption of vitamin K will bring about a drop in the prothrombin level. In such cases the parenteral administration of vitamin K is most satisfactory.

Vitamin K is indicated only in those diseases in which a diminution of prothrombin of the blood can be demonstrated. It is totally worthless in purpura, hemophilia, telangiectasia, and other hemorrhagic diseases in which the prothrombin of the blood is normal.

Much progress has been made in developing the chemistry of vitamin K. Two of the naturally occurring vitamin K's have been isolated, identified, and synthesized. Of greatest practical importance has been the discovery that 2 methyl 1, 4 naphthoquinone has the highest vitamin K potency. It and its derivatives have practically displaced all other preparations. It can be administered orally, intramuscularly, intravenously and by inunction.

Vitamin K has solved the problem of an important group of hemorrhagic diseases. It has done even more, for it has stimulated a renewed interest in coagulation and has given new hope that successful treatment for other bleeding diseases will ultimately be found.

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ORGANIZED MEDICINE AND PUBLIC WELFARE*

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Just one year ago you did me the honor of elevating me to the high office of President of the Medical Society of Virginia. This is no mean distinction and for this evidence of your regard and confidence I am deeply grateful.

The time has now come for me to give some accounting of my stewardship. In certain societies it is the custom for the president to make an address on taking office, but I believe our tradition is the better one. A year of such service brings one into close contact with most of the problems of organized medicine. With such a background the presidents from year to year can bring to you the results of their experience.

This has been a busy year and I want to express my appreciation of the cooperative attitude of all of those who have served with me. The administrative force, the councilors, and the committee members have all done their part well. Whatever may have been accomplished is in a large measure due to their loyal support.

We are met here today as the representatives of organized medicine in Virginia. As individuals we are engaged in the practice of medicine in its various branches throughout the state and we meet to exchange views and to profit by each other's experiences. We also meet to consider problems affecting the public welfare.

Ours is an old organization. There is evidence that the Medical Society of Virginia held its first meeting in 1821 and was chartered by the Legislature of Virginia in 1824. But we are only one of many medical groups in this country They range from our national society down to the state and local component county societies and include many regional and special groups. All of these make up the body of organized medicine. Thousands of the best medical minds in the country devote much of their time and energy to furthering the purposes of these various societies.

But there are some who will say, why organize? For what purpose do the physicians of Virginia and the United States band themselves together? Is it to promote their selfish interests, to improve their economic status, to fix fees, or to influence legislative action favorable to themselves? None of these is true. The real basis of medical organization is set forth in the constitution of the American Medical Association and in that of our own State Society, namely, "to promote the science and art of medicine and the betterment of public health". In these few words are expressed the ideals of organized medicine in America, whether they are those of the great national society made up of more than 118,000 qualified physicians, our state societies, our component local groups, or those organizations representing the various divisions of specialists in medicine.

Throughout the years organized medicine has constantly concerned itself with problems relating to public welfare. In recent decades, with the development of industrial life, these problems have become more numerous and more complex. In the simpler life of a generation or more ago the family physician occupied an unique position in many communities. The area of his practice was limited by his ability to cover it in a horse and buggy or on horseback. His clientele was more fixed and he lived out his life among the small group that he served. He was not only a healer of disease but often an arbitrator of many other matters. He was interested in the general welfare of his community and was the final word on all questions relating not only to the health of his patients but also to the general health of the community. Medical economics had not been heard of then, but he knew his people and he adjusted his fees in accordance with their ability to pay. His medical resources were small as compared to the expensive and complicated equipment of today, but it was equal to that possessed by most other men of his day and he measured out equivalent medical care to the rich and poor alike.

The whole picture has changed now. The vast industrial expansion that has taken place, the rise of great cities with their shifting populations, the great advances in the science of medicine with the tremendous increase in instruments of precision and

*Address of the President delivered before the annual meeting of the Medical Society of Virginia, at Virginia Beach, October 6-8, 1941.

of special procedure of various kinds, has complicated the situation. The modern physician's patients come and go. He is no longer the trusted advisor of a group for whose health he is responsible. If he is to practice good medicine he must possess, or have access to, modern equipment. He cannot do this alone without prohibitive expense, so he has grouped himself with others around hospitals and diagnostic clinics. In doing this he has to a certain extent sunk his identity and no longer commands the loyal allegiance of a certain group, as did his father.

The patient's dilemma is even more difficult. In choosing a physician he is largely guided by chance as he considers the wide assortment of practitioners and specialists, and seeks the one best suited to treat the condition that he considers himself to have. The truth is that neither the patient nor the individual doctor can solve this problem and it is only through organized medicine that it can be approached intelligently. Since this is true and since it is so often impossible for the layman to evaluate the qualifications of physicians, especially those supposedly possessed of expert knowledge in special fields, it becomes necessary that the lay public be protected by law and by regulation inside the body of medicine itself. Since medicine is one of the learned professions, only the profession itself is fully qualified to judge the competency of its members. Even in setting up legal standards for practice it is necessary for law-making bodies to consider well the opinion of the medical profession. Organized medicine is the medium through which the considered opinion of medicine is expressed and is an essential factor in a complicated civilization such as ours, if the welfare of the public is to be protected.

The first requisite of medicine from the standpoint of public welfare is that it shall be of good quality. For this reason down through the years organized medicine has urged upon various legislative bodies the necessity of enacting and enforcing adequate medical practice acts. The purpose of such acts is not to protect the physicians but to safeguard the public. These medical practice acts lay down certain qualifications that each physician must have before he can practice the art and science of healing.

Medicine today is the product of the scientific achievements of the ages. The medical student now more often than not has spent four years in college before he undertakes the four-year course in medicine. He is well grounded in the basic sciences of chemistry, biology, and physics. After receiving his medical degree he spends one to four years in a well organized hospital where he sees the practical application of all that he has been taught. Then, and then only, is he adjudged to be properly equipped to undertake the grave responsibility of treating the sick.

The various states have provided in their laws for the examination of such candidates as meet their requirements and those who can pass these examinations are duly licensed to practice medicine in any of its branches. The law of our state requires that any one who undertakes to treat the sick shall be properly equipped by training and experience. Unfortunately for the public, there are in this state, as in others, a number of untrained individuals who have undertaken to practice outside of the law. Ignorant or venial, they menace not the medical profession but the public health.

The State Board of Medical Examiners is charged with the duty of seeing that the law is carried out, but it is provided with scant funds and is not an enforcement agency. It has discharged its duties well, within the limitation of its power. The duty of enforcing the Medical Practice Act is placed on the constituted enforcement officers of the Commonwealth, but this duty has often been neglected. Organized medicine, knowing the requirements of good medicine, feels compelled to exert its influence to eliminate these unqualified practitioners in the interest of the public welfare. We would prefer to be relieved of this unpleasant task. I would urge upon those legally responsible throughout the state the importance of enforcing fairly and rigidly the Medical Practice Act.

Organized medicine has gone a step further in protecting the public. Through is various societies it has established a code of ethics defining practices that must be avoided. Advertising or the solicitation of patients in any way is forbidden. The use of secret remedies or the receiving of profit from any medical discovery or invention is not allowed. Thus no limit is placed on the spread of medical knowledge and the public benefits in the widest possible manner from each medical advance. The purchase and resale of medical service for profit by a lay group and certain forms of contract practice are

XUM

forbidden, since such practices usually result in the deterioration of the quality of medical service and are contrary to sound public policy. All of these provisions are designed to maintain a high quality of medical service and to extend its benefits to the public.

Organized medicine through its special groups and societies has established standards and defined the qualifications that must be possessed by those undertaking the practice of any one of the specialities of medicine. These requirements as to training and experience go far beyond those defined by law for the practice of medicine. Thus the public is protected against the self-styled specialist and a constantly improving quality of practice is secured. Organized medicine, by its influence on medical education, by urging the enactment and enforcement of adequate medical practice acts, by its code of ethics designed to preserve the quality of medicine, and by the establishing of high standards for qualifications in special groups, has carried out the declaration in its constitution, namely, "to promote the art and science of medicine and to better the public health".

Organized medicine urged the formation of the first public health body in the United States and has consistently thrown the weight of its influence behind public health measures. Our House of Delegates has gone on record as favoring the extension of public health service—local, state, and national—so as to bring the benefits of preventive measures to all the people of the United States. We have repeatedly pointed out the importance of the economic factor in disease and its relationship to poverty, inadequate food, and over-crowded living conditions.

The American Medical Association, through its various councils and bureaus, is rendering a great service to the public. It is only necessary to enumerate these agencies to realize the scope and importance of their activities. The Council on Medical Education and Hospitals has long been engaged in furthering the cause of medical education and in improving hospital standards. The Councils on Pharmacy and Chemistry, on Physical Therapy, and on Food and Nutrition have been, and are, performing a splendid service in evaluating new drugs and other therapeutic agents. The Council on Industrial Health has for years carried on studies of the special problems relating to health hazards in industry. It has accomplished much in furthering preventive measures against accident and disease. This work is of special importance at a time when industry is rapidly expanding to meet the urgent needs of our country.

Since the onset of the present emergency the American Medical Association, the individual state organizations, and the various special societies have been engaged in registering and evaluating the medical personnel in the United States. At the present time there is available to our Government information as to the number, the qualifications, and the availability for service in military, naval, or civilian practice, of those in every division of medicine. We hope that this information will be utilized. We are especially concerned over the medical aspect of the problems arising from the rapid expansion of our military and naval forces. We feel that the medical personnel selected for service in the armed forces should be chosen on the basis of demonstrated fitness for the duties to be performed. It seems improbable that the qualified experts in the many special branches of medicine needed to direct the departments of the numerous service hospitals are to be found in sufficient numbers among those under thirty-five years of age.

The other important consideration is the protection of civilian health, especially in those areas where defense activities are centered. Without some definite plan, the withdrawal of a large number of nurses and physicians from certain areas may work a great hardship and seriously retard defense activities. It seems obvious that only by a selective quota system can the armed forces be supplied with a properly qualified personnel and, at the same time, the medical needs of the civilian population be protected.

During the past decade one of the principal problems facing our profession has been related to the distribution of good medical care. It is fully recognized that in some areas and in certain strata of society medical care is inadequate. Intensive study has been given this subject by many state and local societies. The perfect answer has not been found. Certainly, the answer does not lie in any of the grandiose plans so far suggested by certain socially minded individuals and groups. Certainly, it does not lie in any plan that would lead to the dilution of the quality of medicine or that would hinder the continued advance of the science of medicine. Much has been accomplished in the limited field of hospital

care by various non-profit hospital service plans supported by medical organizations all over the country. Much yet remains to be done to effect an equitable spread of good medical service. The delusion still persists that good medical care can be produced cheaply, when in truth it is an expensive product even if all professional fees were eliminated. The inherent cost factor is the overhead involved in the purchase, maintenance, and operation of the varied equipment necessary in modern medicine. The answer would seem to lie in subsidizing these accessories of medicine. By adequate support of well-equipped hospitals and diagnostic centers all of the scientific resources of medicine could be made available to the practicing physician and through him to his patient.

There are two matters that I would like to bring to your attention that seem to me to be most important. The present method of providing medical care to jail prisoners in this state is a disgrace to the Commonwealth. We have an antiquated fee system based on prescription writing, which opens a wide avenue of abuse to conscienceless individuals and does not properly compensate those who attempt to give good service. Our coroner system has long outlived its usefulness and the coroner should be eliminated to make way for properly qualified medical examiners. I recommend that the House of Delegates authorize the appointment of a committee to confer with a committee from the Bar Association for the purpose of working out concrete proposals on these two suggestions.

During the past year the Council, on the recommendation of your President, authorized the formation of district councils. These councils are made up of representatives from each county in the district and will serve a most useful purpose in our organization. They will be a channel through which each locality can form contact with the State Society and they will enable the State Society to bring matters quickly to the attention of the local groups. The action of our Council has only temporary effect and in order to put these district councils on a permanent basis, it will be necessary that there be an appropriate change in the Constitution. I strongly recommend that this change be made.

As a corollary to this, I recommend that the state be divided into ten councillor districts instead of nine as a basis of representation in the Council of the State Society. The present nine congressional districts have been so distorted for political purposes that they do not form convenient units. It is thought that by rearranging the counties into districts which are geographically contiguous the operation of the district councils will be much more practical.

I have reviewed some of these achievements and purposes of organized medicine in no spirit of controversy. In a complex civilization, only through organization can the quality of medicine be maintained and improved. I am persuaded that the welfare of the American people is closely bound up with the preservation of the quality of medicine. There are many debatable questions in the field of social medicine today and in the past we have engaged in certain disputes. I would urge that for the present at least all controversy be adjourned. Our country is engaged in a mighty defense effort. I am confident that I speak for the physicians of this state when I say that we are ready to devote ourselves unreservedly to this cause, that we are ready to serve in whatever capacity we are needed, whether military or civil, until the purposes of our country are accomplished. But why should this conviction fill our minds and hearts? History records the destruction of the great Greco-Roman culture under the impact of the barbarians from the North. Then followed a thousand years of darkness, through which man again slowly struggled upward. Slowly did he build governments founded on law and justice. Slowly did he gain the right to worship God in his own way, to enjoy the fruits of his own labor, and to pass on to his children his heritage of freedom. The barbarians are again on the march. Already they have struck down many nations in their path. To say that they do not threaten us is the rankest folly. There can be no compromise between the philosophy that recognizes the dignity and the rights of the individual and the philosophy that glorifies the state. There can be no peace between the two great forces moving in the world today. One will be destroyed.

Medicine and its handmaiden, science, are the flower of a free civilization. Only in an atmosphere of liberty, where men may choose their own way of life, where they can without hindrance exchange ideas and in peace pursue the never ending search for truth, only in such an atmosphere can science and medicine thrive. Over the portals of one of the great medical schools of this country are inscribed these words: "Know the truth and the truth shall

XUM

set you free". But how may one know the truth unless the ideals of a free people triumph over the dark forces of barbarism, tyranny, and oppression that threaten the world today? Medicine through the years has dedicated itself to humanity. Through its organizations it has sought to promote the public welfare. Its great and urgent task today is to help to preserve a Christian civilization without which medicine itself will perish.

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PUBLIC HEALTH PROBLEMS IN A DEFENSE AREA AND SUGGESTIONS FOR CORRECTION*

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Before entering into the general discussion of the topic I would like to give you a brief history of Montgomery County in order that it may be more understandable why some of the problems took the form they did. It is most probable that had this defense project been started in some other community, such as a large city or more urbanized community, many of the resultant problems would not have occurred, or at least their emphasis perhaps would have been different.

Montgomery County was created by an act of General Assembly in 1776 from the vast territory west of the Blue Ridge and Alleghany Mountains, then known as Fincastle County. There had been earlier expeditions and explorations, but in 1748 Col. James Patton, Dr. Thomas Walker and others explored and surveyed most of the land now known as Montgomery County.

In 1748 the first settlement, Draper's Meadows, was formed and located in this almost totally unknown wilderness on the future site of the town of Blacksburg. This and many of the other early settlements were initiated chiefly by Scotch-Irish Presbyterians. At the time Draper's Meadows was established, Virginia extended from the Atlantic Ocean to the Mississippi River, including a territory which now is composed of eight states, and boasted a population of 82,000, all but a few hundred of whom were located east of the Blue Ridge Mountains.

At first, Montgomery County embraced about 12,000 square miles and extended west to the Ohio River. This territory was soon broken up into twenty-six counties, so that today the original county has shrunk to only 389 square miles. On July 1, 1940, there were three incorporated towns of less than 3,000 population (Christiansburg 2,500; Blacksburg 1,000; Cambria 810;) one city, Radford, with a population of about 7,000; fourteen unincorporated towns of 250 or less population; and about three very small villages in the county. Between 1790 and 1800 there was a total population of 13,228 which dwindled to 7,405 during the decade 1840-1850. From 1850-1940 there has been an average annual increase of about 1,500 persons, bringing the total population as of July, 1940, to about 21,000, housed in about 4,500 dwellings.

About 90 per cent of the population in July, 1940, was white and 10 per cent colored. Of the white population all but somewhat less than 1 per cent were natives of the county, accounting for the often heard statement that "our county is 100 per cent American".

It can readily be seen that at no time during the almost two centuries of existence of this community was there ever any great population change or influx of persons foreign to the county. Its growth has been slow and natural. There never has been, as far as it can be ascertained, any excess of living facilities or space. The community as a whole has developed slowly and conservatively, only keeping pace with the population increase.

With the exception of the three towns and one city the county is entirely rural. Even this one city is a curious mixture of rural and urban life, for the city embraces fifteen square miles of land, and includes within its limits several good sized farms, as well as several sections where cows and hogs are kept. It was only quite recently that the city adopted an ordinance prohibiting cows from being allowed on the streets. Of interest is the fact that this city is the third largest in area in the State of Virginia.

*Part of a paper read by Dr. I. C. Riggin, Commissioner of Health, State of Virginia, in the absence of the author, at the Southwest Virginia Public Health Conference, Abingdon, Virginia, May 17, 1941.

The water supply of all the incorporated areas receives some form of treatment, the margin between supply and demand being not large. Milk for the most part is unpasteurized, the supply adequate and under the supervision of the State Agricultural Department. Radford City, Blacksburg and Christiansburg have sewerage disposal systems. The sewage from the two towns receives treatment while that of the city is discharged raw into the New River. In the city there are also many cesspools and some privies still in use. Cambria has individual sewerage systems, chiefly septic tanks. The remainder of the county is served by privies.

With this background in mind it is little to be wondered at that the location of the Hercules Powder Plant in Montgomery County on the New River, within a few miles of Radford City, attracting thousands of workmen and their families, found the community totally unprepared. Within the short space of a few months about 23,000 individuals were employed at the plant site, coming from every state in the union. There is no way of determining how many persons actually were here at any one time, for the numbers who brought families and the immigrant unsuccessful job seekers are unknown. Many workers found accommodations in other counties and some commuted considerable distances. Nevertheless, an industrial emergency was at hand.

The public health problems arising from this situation can be grouped into three general categories: sanitation, communicable disease control, and administration.

The chief problems have arisen in the field of sanitation. Large numbers of persons assembled in buildings, inadequate for the purpose. This resulted in considerable overcrowding and offered exceptional opportunities for exposure to disease. Beds were frequently used in three eight-hour shifts. As many as fifteen persons were found living in space only suitable for three. Good personal hygiene and environmental cleanliness was practically impossible. Other groups of persons, unable to find any accommodations, camped in trailers and put up crude shacks in rural areas at sites totally unsuited for such purposes. Most of these people had no means for sanitary disposal of sewage and garbage and obtained drinking water from the nearest unprotected spring. Due to the increased load many individual sewerage disposal systems broke down.

At the plant site during the first phases of construction there was no safe or adequate water supply and no means of sanitary sewage disposal. For a while all water for several thousand men was obtained from a poorly located, open spring of small volume, housed in a building in which chickens roosted. The water was carried in open buckets to various sections of the 4,000-acre plant site and dispensed by means of a common dipper. Hastily and poorly constructed pit privies were neither adequate nor sanitary. To add to the health hazards an unscreened restaurant and mess hall was soon in operation.

Many new eating establishments appeared in the incorporated areas and had to be brought under control. Those already under control suffered a letdown in general cleanliness because they were swamped with an unusual amount of business and were unable to obtain or retain an adequate working force. Constant supervision of food handlers was made necessary and difficult because of the rapid turn-over of such workers in all the restaurants. Because of the increased number of transients on the roads of the county the problem of county-wide eating establishment control arose.

At this time the local and state health departments had no control over the milk supply. Supervision here, as in many other sections of the state, is directed by the State Agricultural Department, whose milk inspectors only number about eight for the entire state. Most of the milk consumed in the towns is graded raw milk, and in the county at large ungraded raw milk.

It is thought the next problem bearing consideration is that of industrial conditions, not only in the defense industry, but in all industries throughout the defense area.

Due to the overcrowding and general insanitary conditions communicable disease control assumed major proportions as a problem. In several instances known open cases of tuberculosis were forced to live in close contact with other persons because of lack of space for isolation. Influenza swept through the plant workers, as it did through the rest of the country, and soon spread to the contiguous community. Isolation was impossible in most instances, although an emergency hospital was set up at the plant. Commuters helped spread the disease for miles around and constantly brought in fresh infection from other areas. Measles and mumps next attacked the workers and population.

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A study of reported venereal disease cases since the construction of the plant compared to a similar period of one year ago revealed there was no appreciable increase in early syphilis and a decrease in gonorrhea, this, despite the obvious infiltration of prostitutes into the area, and the knowledge that certain public conveyors would supply liquor and a prostitute for a nominal fee.

The question of immunizing all plant workers against smallpox and typhoid fever and the trial of some form of propyhlaxis against influenza was raised. Some 3,000 workers finally received typhoid vaccination and about 1,000 smallpox vaccination on a voluntary basis. At first quinine was used as a prophylactic against influenza, but because of ineffective control measures used in the study, the results are inconclusive. The newly developed influenza vaccine was tried later, but no information as to its effectiveness is yet available and furthermore the epidemic was on the decline when it was administered.

One of the first administrative problems to arise was the decision whether the local health department, as formerly, had health jurisdiction over the plant area, the Federal Government, which owns the land, or the Army, under whose supervision the work is going forward. After making a sanitary survey at the plant site, the problem again arose as to which group had the authority to enforce the health department's recommendations: the construction company, the Hercules Powder Company, or the Army officials. Fortunately, these problems never proved to be more than slightly confusing, for all the authorities at the plant were always most cooperative.

Another early administrative problem was the necessity of making a sanitary survey of the entire county, including the towns and city, and referring the ensuing recommendations to the proper governing bodies. In turn, this caused the twin problem of how to obtain quick action, if any action at all, by these conservative groups. The measures thought most urgent to take included local and state health department supervision in the production and handling of milk sold in the incorporated areas; control of food and eating establishments throughout the county; the formation of planning and zoning committees for the towns and county to prevent future sanitary nuisances, such as unsupervised temporary camps, and improper garbage disposal and the keeping of cows and hogs within the urbanized sections of the city; and the betterment of certain housing conditions.

In order that these measures could be put into effect, certain ordinances had to be drawn up and passed upon by the governing bodies. To date only the city has taken action on most of the recommendations, and the county and one town approved a food and eating establishment ordinance.

There still remains one town, close to the plant area, which has not taken any action upon any of the recommendations. This brings up two more administrative problems; what sort of pressure should be brought to bear on the authorities of this town, and, should it be exerted by the local and state health department. The reason this latter question is raised is that if at any time this town decided to dispense with the services of the local health department it could easily do so by refusing necessary appropriations, for local health departments are only barely tolerated in some sections, and are quickly dispensed with upon small pretext. The work of the department might then be in jeopardy in the remainder of the community. Repercussions of this fact are noticed in the attitude of governing bodies toward recommendations offered by the local health department. A health department is not recognized in the same light as other civic bureaus such as police and fire departments, etc. There is no state law providing for the set-up and maintenance of health departments and the governing bodies and public apparently react accordingly.

From the very inception of this industrial emergency the necessity of determining the incidence of reportable disease in the community at large and among the workers at the powder plant was recognized. A workable plan, for example, had to be organized so that plant workers with clinical and serological evidence of venereal disease would receive adequate treatment. Better reporting of notifiable disease by the practicing physicians in the area had to be encouraged. These measures were necessary to insure effective protection of both the defense project workers and the remainder of the population.

Along with these administrative problems came the realization that in case of an epidemic or a major disaster, hospitalization would become an acute problem, and be thrust principally upon the local health officer. In consequence, appropriate plans had to be drawn up to combat successfully such potential emergencies.

Not to be forgotten are the closely related problems of the public's health: public welfare and the medical care of the indigent and medically indigent. Because of the paucity of living space and the increased demand, rentals doubled and trebled. Families on a marginal subsistence were forced to move, where, they knew not to. Many were simply evicted with all their belongings to make room for the better able to pay "bullet factory workers". Many pitiful tales could be told, such as about the evicted family who had to live in a chicken coop in order to have a roof over their heads, and this accommodation allowable only for a short while, for it too was in demand as a rent. Because of the increase in jobs, wages, and population to be serviced, medical services soon were offered at a premium. This problem was particularly noticeable because there is no fund available for the medical care of the indigent in the public welfare budget.

In reviewing these problems it will be noticed that they resolve themselves into two broad groups: one, and these are probably in the majority, old, sub-surface conditions which have merely been brought to light and accentuated, and the other, new problems, in part caused by the accentuation of those old problems.

Some of the following suggestions for the correction of existing and prevention of future public health and related problems in a defense area may sound bold, coming as they do from one not old in public health experience, especially in the State of Virginia. They are offered to you merely for what they are worth and with a spirit of deference:

1. When a defense project is planned for a community the state and local health departments should be advised as far in advance as possible, so that necessary surveys and plans of action can be formulated, thereby obviating as far as possible preventable emergencies.

2. A complete sanitary survey of the entire defense area should be made by the local and state health departments, setting up and maintaining up-to-date records of all data of sanitary importance.

3. Plans should be made for the abatement of nuisances, and followed through to completion as rapidly as possible.

4. When a local health officer has accomplished as much as he can and the condition is thought important to correct, some form of pressure should be brought to bear upon the responsible authorities, coming preferably from the state health department, and even the Federal Government, other efforts failing.

5. County health departments should be placed on as permanent a basis as the court of law, especially in defense areas. This action would give much more weight to the local health officers' recomdations, and serve as a driving wedge for placing permanent health jurisdictions throughout the state.

6. Of prime importance is the immediate establishment of cooperation between the defense project health authorities and the local health officer. This cooperation should not be merely of words, turned cut in polite phraseology, but rather be of the spirit, so that the best plan of action can be adopted which will effectively protect both the defense project workers and the surrounding population.

7. Complete reporting of notifiable disease, both by the practicing and the defense project physicians, should be insisted upon. An appeal to this effect direct from the state health department to all physicians in the defense area would seem to be timely.

8. Where there is more than one health jurisdiction in a defense area, it would be advisable for those health officers to collaborate in order to expedite public health matters. Perhaps some plan for regional administration of this entire defense area might be indicated.

9. There is a definite need of a workable plan for the medical care of the indigent and medically indigent. It would seem a fund for this purpose could be set aside in the public welfare budget to include more than merely medical emergencies as it now does.

10. A survey of industrial conditions, not only in the defense industry, but in all industries in the defense area is advisable.

In conclusion let me say that whatever is accomplished now is not only important for alleviating the present situation, but for the permanent improvement of the health of the people in this area.

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THE SURGICAL CORRECTION OF NEUROFIBROMATOSIS (PLEXIFORM NEUROMATA) ABOUT THE ORBIT*

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Much has been written recently about neurofibromatosis from a pathological and histological standpoint. This has included not only the microscopic pathology, but also the many various allied accompanying defects and findings. The clinical correction of these cases, however, has been neglected in the literature to an astonishing degree. It is rather likely that one reason for this is because the various anatomical defects which appear are so numerous, so pleomorphous, and so individual in each case that it would demand quite a series of cases before any surgical procedures could be outlined, sufficiently embracing to be worth considering the condition as an established surgical entity.

This presentation, to be true, is based upon a small number of cases of neurofibromatosis about the orbit, but they are sufficiently unlike that the eleven individuals presented show many conditions not common to more than two or three of the group. Some of the cases have been carried to completion, others have some work still to be done, one case refused surgery, and one child is still too young for any extensive treatment. The ages are, therefore, from six months to thirty years of age. The period, however, at which the defect appears, is always in the very early years of life. The infant of six months is the youngest case the author has seen.

These peripheral nerve tumors, though properly grouped together with glial neuromata (the ectoderm tumors of Schwann's sheath), von Recklinghausen's disease, the neurofibromata of the cranial nerves, and neuronomata, are more commonly spoken of as plexiform neuromata. They have many characteristics which are common to this general group, but of themselves are definitely individual. Their surgical dissection demonstrates without any doubt Wilson's statement that they result from lawless or untrammeled neurofibromatous proliferation of the terminals of the entire distal fan of a nerve. Penfield feels that many of these conditions have, etiologically, a double aspect; one, a background of congenital anomalies (the neurofibrosis tissue), and on this is superimposed, too, neoplastic areas not to be distinguished from perineural fibroblastomata (this of mesodermal origin). The statement emphasizes the necessity for very thorough removal when operating. Even though these masses of themselves are not essentially neoplastic, in terms of malignancy, still following incomplete removal, and perhaps as a result of the surgical trauma, sarcomatous transformation has occurred. Properly regarded as benign (Wilson) in the sense of pursuing leisurely development, still many men, as Thompson, Cestan, Burger, Gray, and others, have seen this sarcomatous change occur. The sarcomatous areas may appear in patches, or the growth becomes uniformly altered to this type of malignancy. In addition, as seen by Franchet and Labbé, a general state of sarcomatosis may develop, as though some congenital predisposition to tumor growth of different sorts and of different tissues lay behind the neurofibromatous disease.

The tumor tissue grows very slowly, but steadily. Inadequate and incomplete removal demonstrates this in a rather distressing manner. The anatomical defects which have appeared and which need correction are as follows: (1) the tumor tissue itself; and (2) a brawny pigmentation of the skin, doughy in consistency, inelastic, infiltrated, with redundant skin about the tumor tissue, even to the formation of hanging flaps, these frequently covered with long, dark, curly hairs. The skin in this condition will stand no tension whatsoever, bleeds copiously, and sutures, when placed with the least bit of tension, tear out very readily. It is almost as if one were suturing liver tissue. The distant café-au-lait spots so characteristic of this condition, showing themselves on the back, on the chest, and on the lower extremities, usually need no surgical removal. (3) Bone defects are seen as atrophy of the upper outer angle of the orbit, the lower outer angle of the orbit, and the floor of the orbit. One case was found with an encapsulated sequestrum of the outer wall of the orbit. Loss of, or defects of the zygomatic arch are quite common; spreading of the orbital suture lines is not at all uncommon, and one case was seen with a defect in the frontal bone. (4) Invasion of the orbit itself by tumor tissue is frequent. (5) Ptosis is a

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most common finding, due not only to the weight of the upper lid, with the included tumor tissue, but also to a rather interesting destruction of the levator palpebrae superioris or even with a posterior displacement of the levator. This is quite unusual, but in two instances, the levator was found and reattached. The orbicularis palpebrum is affected similarly, that is, by deformation and by atrophy. These conditions of the upper and the lower lid also have minimal degrees of entropion, and of conjunctival deficiency. (6) Accompanying defects of the globe itself, as micro-ophthalmia, and (7) ocular motor disturbances, especially of the external rectus are found. (8) One case of retrobulbar aneurysm was seen.

Fig. 1.—Case at time of first examination. Patient has complete absence of superior fornix, symblepharon of lid margin, neurofibromatous mass over the orbit.

In the handling of these cases, there is one thing which is certain, that is, roentgen-ray therapy is of no value whatsoever in the treatment of the condition. In one instance, however, it was of great benefit in cleaning up a chronic longstanding dermatitis with marginal blepharitis residual after the major plastic correction had been completed, and it is valuable for depilation.

The surgery usually must be done under general anesthesia, because in most instances, the soft tissue defects are so marked that infiltration anesthesia would be inadequate. The actual dissection of the tumor tissue, which is easily recognized, as white, worm-like masses, must be very carefully done—not only to save tissues not involved, but also to remove all of the neoplasm, to prevent unnecessary scarring,

Fig. 2.—Same patient several years later after median tarsorrhaphy.

and at the same time, to conserve as much as is possible of skin, muscle tissue, tarsal plates (if they are still present), and the hair lines. Tumor tissue

Fig. 3.—A forehead defect. Margins of this outlined in black lines.

which extends into the orbit should be removed as meticulously as that lying in the lids. It will be of great assistance in these cases if careful sketches are made preoperatively, and a definite plan worked out for the subsequent correction.

In presenting the following cases, the surgical techniques used are simply mentioned, as a rule, and not described in detail. Possibilities for correction are at the moment, more important than the means used for achieving this.

CASE 1. Wills Hospital. Male infant, six months of age. Unilateral exophthalmos on right with lagophthalmos, symblepharon of the upper lid, with a complete loss of the superior fornix. Large doughy lesion above on the right forehead, immediately above the rim of the orbit, and accompanying it is an underlying bone defect of the frontal plate. When the infant is held up, by his feet, head downward, the whole mass increases slightly in size, and barely pulsates. Figure 1 shows the case, Figure 2 is the present condition, and Figure 3 is the defect as seen by roentgen-ray. An exploratory operation was done for diagnosis and a median tarsorrhapy performed to prevent exposure keratitis. No further surgery will be done in this case for several years. The correction necessary is the reopening of the lids, mucous membrane correction for the symblepharon, removal of the tumor, and a bone graft correction of the fault in the frontal bone. One must consider here the very likely possibility of this case being one of intracranial neurofibromatosis with extension through the frontal bone. This point was raised by the neurosurgeon in a recent examination of the case, but naturally it cannot be decided before head surgery has been carried out. Recent air studies failed in deciding anything definite.

CASE 2. Young man, age 24, admitted to the Graduate Hospital by the late Dr. Thomas B. Holloway, for consultation and for the advisability of roentgen-ray therapy. Surgery was declined. Ptosis of the upper lid on the right, neurofibromatous infiltration of the forehead and of the right temporal region, slight unilateral exophthalmos, slight widening of the inferior osseous angle of the orbit. Massive roentgen-ray was attempted, but, as expected, was valueless.

CASE 3. Boy, age 16, as illustrated in Figure 4, admitted to the Orthopedic Hospital, with a very extensive generalized eczema, supposedly of neurogenic origin, with micro-ophthalmia, neurofibromatous infiltration of the skin over the forehead, and with ptosis. Surgery was the removal of the tumor tissue under the skin, and with it, a simple enucleation of the microthalmic eye. This case illustrated

Fig. 4.—Condition upon admission. The micro-ophthalmic eye is just apparent.

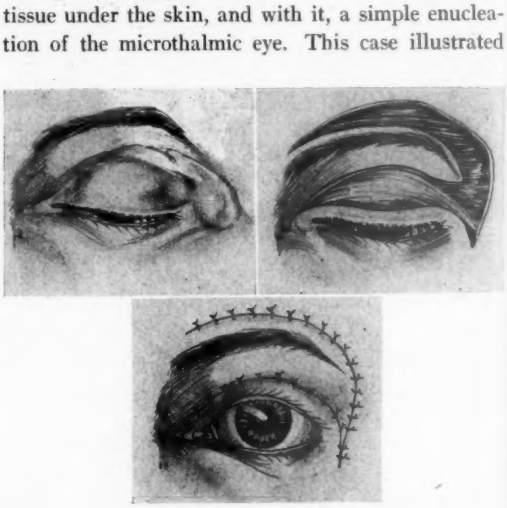

Fig. 5.—Sketches to illustrate tumor resection with conservation of orbicularis fibers, and without disturbing the position of the eyebrow.

one important thing seen in the illustration. In removing the tissue with the overlying skin, it is important not to disturb the position of the eyebrow. This prevents a later unfortunate dissimilarity in the two sides, and it serves as an important landmark. Figure 5 illustrates this. The patient's second operation was a typical Everbusch incision, with tarsectomy, and, thereby, the correction of the ptosis.

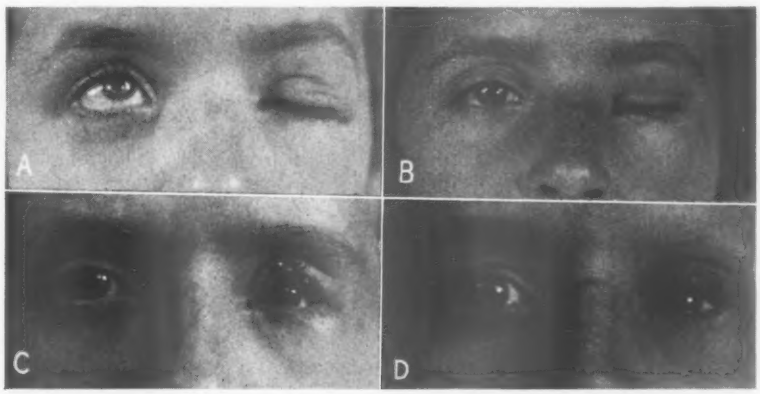

Fig. 6.—(a) Condition prior to the tumor removal. (b) Immediately after the removal. (c) Two years later, after the reattachment of the levator. (d) Following ear cartilage implant.

CASE 4. Wills Hospital. Age 6, when first seen. A rather similar defect with ptosis and with paresis of the external rectus on the left. Several weeks following the removal of the tumor mass through an orbital exploration, it was possible by an Everbusch incision to dissect out the levator and to reattach it to the margin of the lid. The patient had no tarsal plate, for this was necessarily removed at the time of the tumor resection. The lid closure was quite uneventful following recovery from this operation. When she opened her lids, however, a very unpleasant notching occurred, for there was no support to the lid margin, as a result of the tarsectomy. A piece of ear cartilage, slightly larger than the normal tarsal plate, was removed from the pinna of the left ear, and this buried into the upper lid. Figure 6 A is the patient before the tumor's removal and Figure 6 B, after this was done. Figures 6 C and D illustrate the case eighteen months after the ptosis operation, and immediately following the ear cartilage implant. They cover a period of about two years.

CASE 5. Graduate Hospital. Girl, 18 years of age. Figure 7 is prior to any surgery. Ptosis of the upper lid on the left, infiltration of the lower

Fig. 7.—Front and side view of condition prior to any surgery. There is ptosis of the upper lid, slight exopthalmos, tendency to widening of the inferior outer angle of the orbit, and almost complete loss of the zygoma.

lid; slight exophthalmos; widening of the outer angle of the orbit; loss of the zygoma. Her initial surgery was done in another city. At the time when she was first referred, Figure 8, she had: enophthalmos, following the removal of the orbital extension; lagophthalmos at the inner canthal angle and ptosis at the outer canthal angle; paresis of the external rectus; and a defect of her zygoma. The covics ptosis operation was done for the reattachment of the levator (especially the outer two-thirds) to the upper palpebral margin. This was followed by a Reese type of external angle canthoplasty, because the palpebral fissure now was considerably wider than that upon the opposite side. Figures 9 A and 9 B show the case at the time of her discharge; the closure of the lids is now adequate.

Fig. 8.—(a) Same case as Figure 7 when first seen by the author. (b) Following resection of the adherent scar in the septum orbitale. Upper lid still in ptosis. Closure, however, of palpebral fissure now possible.

muscle defect was improved decidedly by recession of the internal rectus. Resection of the adherent scar in the septum orbitale permitted a fuller closure of the lids, even though the upper lid was still in ptosis. Figure 8 A. Prior to this operation, only the outer half of the lid margin could be closed sufficiently to meet the lower lid. The inner half, however, remained notched, adherent, and elevated. A Blas-

CASE 6. Wills Hospital. Boy, 10 years of age. Figure 10 A. Unilateral exophthalmos on the right; marked infiltration of the upper and lower lid by tumor tissue; ptosis; paresis of the superior rectus; marked enlargement of the orbit; marked defect of the zygoma; almost complete loss of the superior fornix. Following the removal of the tumor mass about the lids and from the orbit, a rather thick

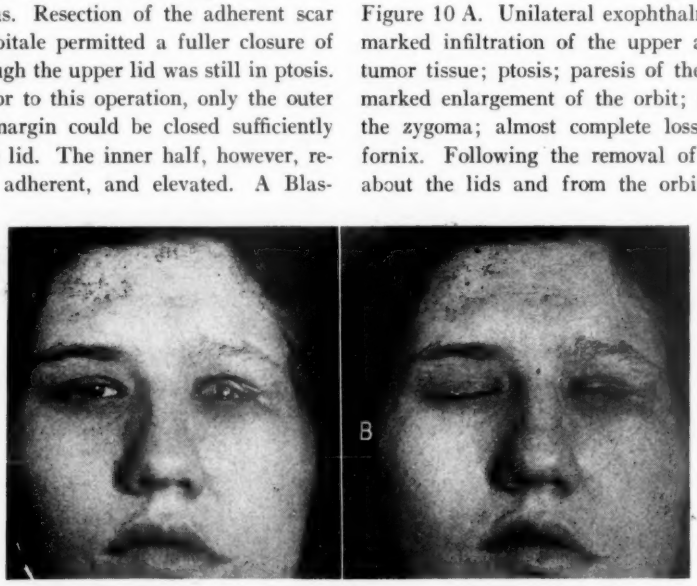

Fig. 9.—(a) Patient at time of discharge from hospital, following external angle canthoplasty, and the reattachment of the levator. (b) Attention is called to the bulging of the soft tissue over the malar, a defect due to the almost complete absence of the arch of the zygoma.

scale of rib-cartilage was placed under the periosteum in the floor of the orbit to elevate the eye to the level of the left. The cicatrix which followed this surgery was quite marked. Figure 10 A. Further surgery was done to resect as much of the resulting scar as was possible. The upper lid, however, remained thick, and almost immobile in ptosis. Figure 10 C. An attempted Hess ptosis operation was followed with poor results, as seen in Figure 11 A. Some further improvement resulted in lid motility and in the reconstruction of the cul-de-sac after the introduction of three black silk mattress sutures from the superior cul-de-sac, emerging on the skin of the upper lid just below the level of the eyeball. There, they were tied through pearl buttons and left in position, being tightened constantly from day to day, until they had sloughed through completely. It was hoped to utilize the patient's tendency to form unusual amounts of scar tissue to obtain cicatricial bands in the cul-de-sac to hold this up. Figure 11 B. Finally, a fascia lata sling operation was done for the ptosis, and Figure 11 C shows the case as it was at the time of his discharge from the hospital.

Fig. 10.—(a) Case when first seen. Unilateral exopthalmos, marked infiltration of both upper and lower lids, enlargement of the orbit, defect of the zygoma, loss of superior fornix. (b) Condition following the removal of the tumor mass about the lids. (c) The same patient following the cartilage implant into the floor of the orbit, and the resection of some of the scar tissue from the upper lid. Upper lid thick, immobile and in complete ptosis.

CASE 7. Graduate Hospital. Boy, 12 years of age. Marked infiltration of the upper and the lower lid with ptosis; paralysis of the left superior rectus muscle, slight exophthalmos; marked enlargement of the orbit; ptosis of the eyeball; partial loss of the zygoma; widening of all the orbital suture lines.

Fig. 11.—(a) Following the Hess operation. (b) After the implant of black silk sutures through the upper lid for the correction of the ptosis. (c) After correction of ptosis with a fascia lata sling.

Fig. 12.—(a) Unilateral exophthalmos, marked enlargement of the orbit with ptosis of the eyeball, partial loss of the zygoma. (b) Lid lifted to illustrate the tremendous enlargement of the orbit; the orbital defect being largely in the floor and outer angle of the orbit.

Fig. 13.—(c) The case of Figure 12 following resection of tumor mass, and after repair of the orbit with a cartilage graft. (d) At the time of his discharge from the hospital immediately after the removal of the sutures from the Hunt-Tansley ptosis operation.

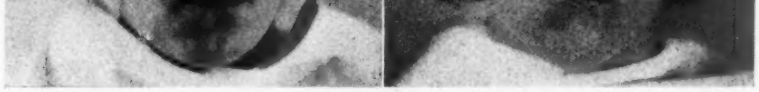

Fig.14.—(a) Marked exophthalmos. This is especially well seen in (b). Great pigmentation of the skin with much growth of hair. (b) Same patient. Upper lid raised to show the exophthalmos better, and the neoplasm infiltration of the superior fornix.

Figure 12 A. The surgery which was done in this case probably illustrates that which is necessary in a very large percentage of instances, that is—first, removal of the tumor mass from the skin of the lids, and about the orbit, from the temporal fossa, and from the orbit itself; and secondly, the necessity for a rather thick rib-cartilage graft to be placed under the orbital periosteum for the correction of the sub-

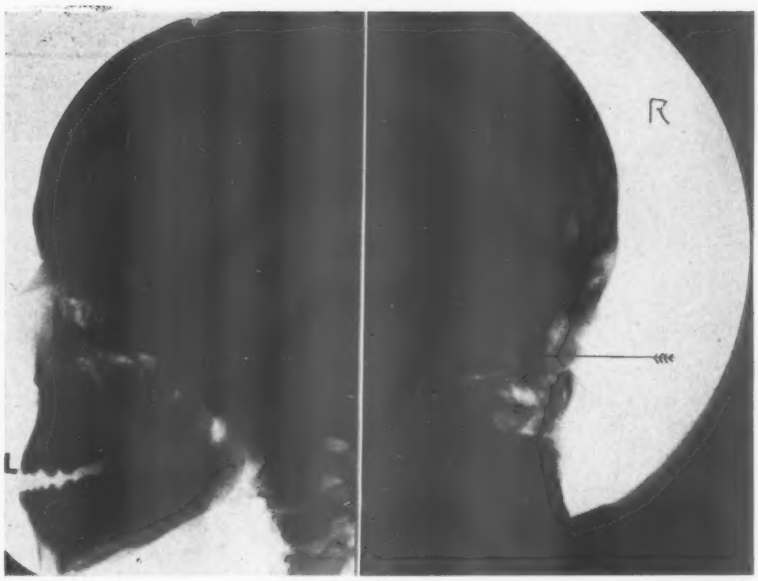

Fig. 15.—(a and b). Roentgenograms of the right and left sides to illustrate the sequestrum line in the lateral wall of the right orbit. The left side is normal throughout. The sequestrum on right was not only encapsulated, but also, upon removal, was of a white, ivory hard density.

sequent enophthalmos and downward displacement of the eyeball; and thirdly,—some correction, as a Hunt-Tansley operation (in this instance) for the ptosis. This patient must have further ptosis surgery, however, after an interval of two or three more years. Figures 12 A and B, and C and D illustrate the case after these surgical procedures just described were carried out.

CASE 8. Wills Hospital. A child, 8 years of age, with marked exophthalmos; marked infiltration of the skin, with a great amount of pigmentation, accompanied by much new growth of hair in the skin

Fig. 16.—(a) Immediately after the neoplasm removal, and following the external orbitotomy for the removal of the sequestrum. (b) The case when last seen. There is no longer any pulsation from a retrobulbar aneurysm. There is still a bit of residual ptosis, which will need some later correction.

Fig. 17.—(a) Front and side view showing tumor infiltration of the skin, the ptosis, and (b) the unusual growth of hair overlying the region of the zygoma.

over the tumor; marked defect of the zygoma; an encapsulated sequestrum in the outer wall of the orbit; and a pulsating retrobulbar aneurysm. During the removal of the tumor tissue, an orbital wall resection was necessary to permit the removal of the sequestrum, and of that extension of the neoplasm which lay in the orbit. Also, it was thought necessary to determine, if possible, something more definite relative to the pulsating retrobulbar aneurysm. At this surgery the aneurysm was seen to enter the orbit through the inferior orbital fissure. In the removal of the skin tissue with the underlying tumor tissue, it was necessary to undermine the skin of the face down to the angle of the jaw, to carry the incision in front of the pinna, and to undermine well into the forehead, so that satisfactory closure could be obtained. With such extensive dissection one had to be careful to prevent damage to the facial nerve supply to the muscles supplied by the 7th nerve. There is some slight ptosis residual, following this surgery, but it is not to be reoperated for another year. Following the soft tissue and bone surgery,

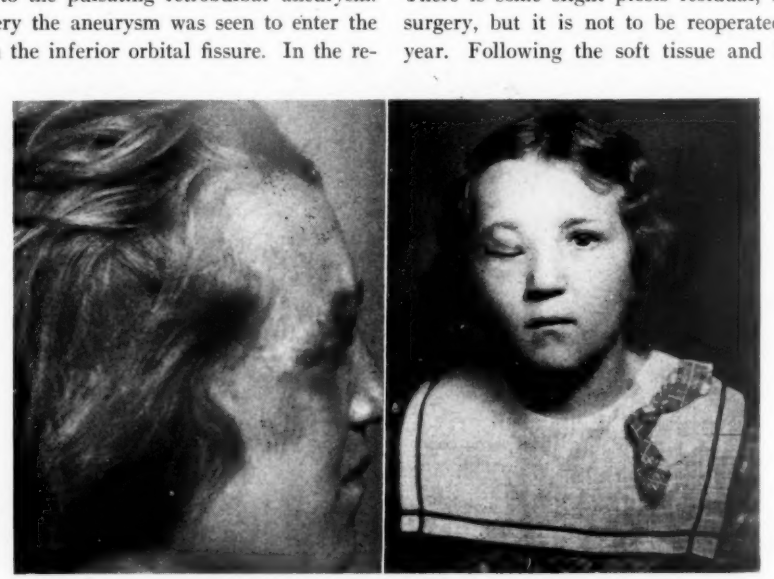

Fig. 18.—(a) Patient shortly after the removal of the neoplasm, and prior to depilation by x-ray therapy. (b) Case completed except for the ptosis surgery.

Fig. 19.—Case at completion following Hunt-Tansley ptosis operation. Additional improvement could be obtained with a cartilage graft for elevation of the depressed eyeball. Vision, however, of right eye is only 1/150.

the patient was referred to a roentgenologist in her home town, and she has been given massive roentgen-ray therapy for the aneurysm. This treatment has resulted in complete cessation of all pulsation, and, at the same time, further recession of the exophthalmos. The case will be completed by a finger pedicle flap from the skin of the upper lid into the lower lid margin, and the lower lid, thereby correcting the slight residual ptosis and simultaneously correcting the ectropion at the outer angle of the lower lid. It should improve, decidedly, at the same time, the appearance of the external canthal angle. Figures 14 A and 14 B show the case upon admission, Figures 15 A and B are the roentgen-ray photographs of the right diseased side showing the sequestrum, and of the left normal side, they also show the zygomatic defect, the orbital deformity, and the orbital bone erosion from the pulsating aneurysm. Figures 16 A and B illustrate the case subsequently, at the present time.

CASE 9. Graduate Hospital. Child, age 9 years, with marked infiltration of the skin, marked ptosis, extensive atrophy of the floor of the orbit, and a most unusual growth of hair over the tumor mass, down almost to the level of the angle of the mouth. Figure 17 A is the front view of this, and Figure 17 B, the side view, the latter showing not only the tumor mass but also the growth of hair present. Figure 18 A illustrates the case after the tumor resection, side view, prior to roentgen-ray depilation, and Figure 18 B, the front view some time later after sufficient roentgen-ray therapy had been used to obtain complete depilation over the former tumor site. The brown pigmentation present was decreased simultaneously to some degree. Figure 19 is the

Fig. 20.—(a) Case upon admission. Neurofibromatosis of the upper lid and into the temporal fossa. Arch of the zygoma wholly absent. Brawny infiltration of skin rather prominent. Nodular excrescences of neurofibromatous tissue extending down over the malar process even into the skin over the chin. (b) Same case immediately after removal of the tumor mass in the upper lid.

Fig. 21.—(a and b). Café-au-lait spots on the left knee and the right upper arm of this patient.

case following a Hunt-Tansley operation. This child, for cosmetic reasons only, should have a cartilage graft to elevate the depressed right eyeball; vision, however, is only 1/150.

CASE 10. Graduate Hospital. Young man, age 20, with marked neurofibromatosis of the upper and the lower lid with redundancy of the tissue there, so that a fleshy mass overlay the area of the zygoma. The zygoma was wholly absent. Figure 20 A. The extent of the brawny infiltration of the skin was very marked. He had many café-au-lait spots throughout his body; two of these are illustrated in Figure 21. The surgical removal of the neoplasm on the face was followed by such a large defect, that it was necessary to swing skin up over the angle of the jaw, and then to cover that secondary defect by a sliding flap from the neck. Figure 22 is the side view of the case after this operation, and Figure 23 A illustrates this flap schematically. Figure 23 B shows the flap with the suture lines artificially accentuated. This case, following his surgery, had a persistent recurrent folliculosis along the incision lines, with a marginal blepharitis, which remained resistant to all treatment until roentgen-ray therapy was used. Figures 24 A and 24 B show the case at the time of discharge.

Fig. 22.—Side view of the patient following the removal of the neoplasm on the face and healing after the pedicle flap.

CASE 11. A woman, age 30 years. Graduate Hospital. Her defect was similar to that seen in Case 10, except to an even more marked degree. There was a large brown hairy flap overlying the entire right side of the face (pachydermatocele also called elephantiasis neuromatosa). She had a marked micro-ophthalmia, with unusually large conjunctival cul-de-sacs. The entire zygoma was missing. Her surgery consisted of an enucleation of the micro-ophthalmic eye, the removal of the soft tissue defect, utilizing a similar plastic procedure as in Case 10, and subsequently removal of small areas of scar tissue contraction with resuture, and finally, a Hess ptosis operation. Figure 25 illustrates this case prior to surgery; Figure 26 A, immediately after the tumor removal; Figure 26 B, after further lid sur-

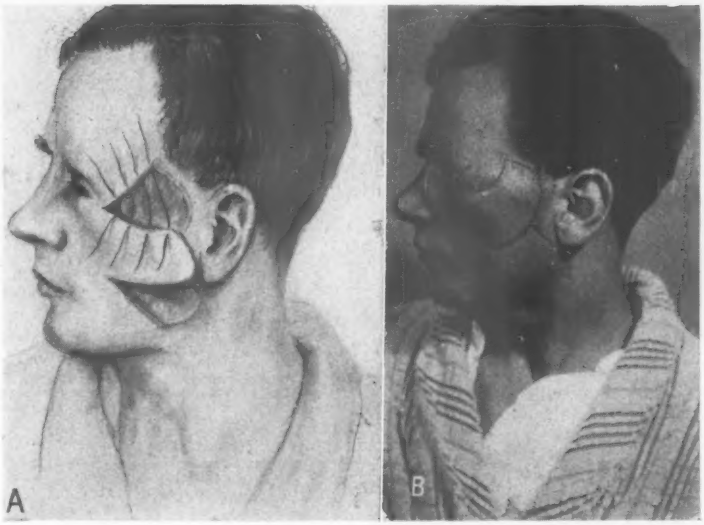

Fig. 23.—(a) Schematic drawing to illustrate the flap used. (b) Same case with suture lines accentuated

gery and the enucleation; notice the defect of the zygoma; Figures 27 A and 27 B before and after the roentgen-ray depilation of the tissue over the zygomatic fossa; Figure 27 C is the end result; patient is now fitted with a satisfactory prosthesis. Her last operation was the utilization of fascia as a sling for the correction of some residual ptosis.

CONCLUSIONS

A series of eleven cases of neurofibromatosis about the orbit has been presented to illustrate the surgical procedures necessary for correction. It is evident that the results in several of these instances are still far from perfection. It is equally certain, however, that they all have been greatly improved. The accompanying ptosis is probably the most difficult of the deformities to correct. In the removal of the neoplasm, one must be quite meticulous in the dissection to remove all the tumor tissue that can be found. The tumor mass infiltrates without a capsule and the dissection necessary for complete removal is often extensive and rather far reaching. Thus, the skin when itself involved, must be removed—this to be replaced by a pedicle or a sliding flap. Orbital extension needs equally careful removal. These cases are not easy of correction to maximum benefits, and demand, in each instance, several different operations. Because of the wide resection of the involved skin, as necessary, sliding flaps should be used to close the defect. Cartilage grafts are frequently necessary as well. Incomplete removal results in further growth and seems, according to some men, to predispose to sarcomatous conversion. X-ray and radium therapy, as now used are both valueless. It seems that best results were obtained in those cases in whom the various surgical procedures were done with a fair interval of time intervening between each operation. From two to four years are usually necessary to obtain the best results in any given case.

Fig. 24.—(a and b). Show the case at time of discharge from the hospital. Satisfactory closure. The residual ptosis was corrected with an Everbusch procedure.

Fig. 25.—(a and b). Front and side view of patient upon admission prior to any surgery. The huge pachydermatocele is very evident. The loss of the zygoma is in part masked by this hanging flap.

Fig. 26.—(a) Immdiately after the tumor removal. (b) After further lid surgery, and after the enucleation. Artificial eye now being worn. The defect from the loss of the zygoma is very evident in (b).

Fig. 27.—(a) Before roentgen-ray depilation. (b) The case following the completion of this, and before the final ptosis surgery. (c) The case completed with a fascia lata sling operation.

None of these cases presented had an intraocular extension of the tumor. It is quite possible, however, that Case I has an intracranial neurofibroma (plexiform) which will demand an exploratory craniotomy.

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PYLEPHLEBITIS

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Pylephlebitis is probably the most serious complication of appendicitis. This condition is due to infection in the portal system extending upward to the liver with the formation of multiple abscesses within that organ. While the large majority of these infections result from appendicitis, any suppurative process within the area drained by the portal vein may give rise to pylephlebitis. Cases have been reported following infection in the stomach, duodenum, small intestine, colon, rectum, pancreas, spleen, gall-bladder, and mesenteric glands.[1]

Eliason[2] stated that 92.8 per cent of reported cases of pylephlebitis resulted from appendicitis and it is estimated that about one-fourth of one per cent of all acute appendicitis terminates in pylephlebitis. A review[3] of 8,969 cases of acute appendicitis treated at the Massachusetts General Hospital from 1900 to 1933 showed twenty-seven cases of pylephlebitis, or an incidence of three-tenths of one per cent. The mortality was 92 per cent. This figure appears very high but other series are comparable; Brutt reporting a mortality of 95 per cent, Moschowitz 85 per cent and Otschkin 80 per cent.[3]

Despite the distressingly high mortality and not infrequent occurrence of this condition a review of the recent literature shows relatively few articles on this subject.

The symptomatology is fairly constant and the diagnosis as a rule is not difficult, yet many cases come to autopsy unrecognized. This is due in part to the fact that pylephlebitis is secondary to another infection and the attending surgeon may ascribe all of the symptoms to the original complaint and fail to realize that a second and more lethal condition has developed.

The most constant and suggestive sign of pylephlebitis is an unexplained post-operative chill in a patient with an intra-abdominal infection. A history of a single pre-operative chill associated with acute appendicitis may mean much or little, for probably 2 or 3 per cent of all cases will give a history of having had a rigor prior to operation, whereas only 10 per cent of these patients will develop pylephlebitis. Significant, however, are the figures of Allen[3] and his associates, who found that 40 per cent of all the cases of pylephlebitis in his series gave the history of a pre-operative chill. It has been suggested that one chill at the onset of acute appendicitis is of little moment but that two chills are indicative of portal involvement.

While acute appendicitis without rupture may result in pylephlebitis the usual causative agent is a gangrenous appendix removed late in the illness. As a rule the operator is not aware of the thrombi in the appendiceal veins and gives no thought to this possibility at the time of operation (Allen).[3] The chills are irregularly spaced and may be followed by quiescent periods during which the patient may be virtually afebrile. A septic temperature with marked fluctuations and drenching sweats is usually seen as the illness progresses.

Abdominal pain is inconstant early in the disease but when present it is usually localized in the right upper quadrant. The liver increases in size and is frequently tender. A pleural rub in the right base or referred pain to the shoulder is often present. If the process in the liver is widespread an X-ray of the chest will frequently show inflammatory changes in the base of the right lung with elevation and limitation of motion of the diaphragm. Eliason[2] considers a slight edema of the right flank and over the region of the lower ribs in the midaxillary line as almost diagnostic when the other signs point to pylephlebitis.

A mild icterus is usually present and when it appears early in the illness it may confuse the picture by suggesting gall-bladder disease. Nausea and vomiting are inconstant but anorexia is usually pronounced. Emaciation is rapid and prostration is marked. A severe anemia usually develops. The spleen becomes palpable as the disease progresses. In late cases ascites has been reported. In the majortiy of cases the course is progressively downward and the patient succumbs several weeks after the onset of symptoms.

The laboratory findings are not diagnostic in pylephlebitis. The leukocyte count is moderately to markedly elevated. The slight clinical jaundice is substantiated by the icteric index. Blood cultures are usually sterile and when growths are obtained it

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means that the infection has progressed beyond the stage of pylephlebitis and metastatic abscesses in the liver are spilling organisms into the hepatic veins.

The treatment of pylephlebitis has been as ineffectual as the high mortality would indicate. Prophylaxis is naturally the ideal approach to this condition. An early diagnosis and immediate operation in acute appendicitis would probably obviate three-fourths of these cases. Any patient with acute appendicitis who gives a history of a chill and especially those who have had repeated chills should be considered potential cases of pylephlebitis. The mesentery of the appendix should be closely examined for thrombosed vessels and, if these are present, the ileo-colic vein should be ligated above the clot after the method of Braun.[3] This should be done before the appendix is removed, otherwise the manipulation and trauma incident to ligating the meso-appendix may dislodge septic thrombi with spread of the infection. If a thrombus is present in the ileo-colic vein the vessel will be firm and enlarged to almost the diameter of a pencil. Ligation of the portal vein has been advised in this condition but little benefit could result and much harm may follow so radical a procedure.

When pylephlebitis appears following operation, the decision as to ligation of the ileo-colic vein is more difficult. Many of the patients have peritonitis of the involved area. This adds technical hazards and the trauma of operation in an infected field may do more harm than good. Each case must be decided on its own merits.

Repeated transfusions are useful in all cases. If the X-ray of the chest and the contour of the liver suggests that a single abscess has formed from coalescence of small abscesses, this should be drained by the most accessible route. The large majority of cases do not lend themselves to this procedure and an exploratory operation is futile in most cases.

The introduction of chemotherapy offers much in the treatment of pylephlebitis. Sulfonamides by mouth undoubtedly give a high concentration of the drug in the portal system and should act directly on the infection in the liver.

Ottenberg and Beck[4] stated that they treated two patients with pylephlebitis successfully with sulfanilamide. Evarts Graham[5] in commenting on this report in the 1939 Year Book of General Surgery observed that he also had two recoveries from this condition following the use of sulfanilamide. Chemotherapy, therefore, will probably be our greatest ally in treating pylephlebitis.

An illustrative case is cited.

Mr. L. T. S., Jr., a thirty-one-year-old office worker, was admitted to St. Elizabeth's Hospital on the afternoon of August 18, 1940, complaining of abdominal pain of twenty-four hours' duration. The pain which began in the center of the abdomen was accompanied by nausea and vomiting and prevented sleep during the night prior to admission. Later questioning elicited the history of one chill during the night. The pain continued cramp-like and gradually became localized in the right lower quadrant and right flank. Several hours before admission the acute pain diminished but the entire abdomen became tender. He was seen by Dr. Turner Shelton who advised hospitalization.

Physical examination on admission showed a robust, slightly overweight, young man who was obviously ill. The findings were indicative of a ruptured appendix with early peritonitis. The pre-operative temperature and pulse were not recorded on the chart.

The routine laboratory studies showed a total white cell count of only 8,400 but there were 92 per cent neutrophiles in the blood smear. The hemoglobin was 88 per cent. The urinalysis was normal.

An immediate operation was done under ethylene-ether anesthesia through a McBurney incision. The appendix was exposed with difficulty for it was situated retrocecally and the abdominal wall was exceedingly thick. The appendix was gangrenous and there was localized peritonitis but the general peritoneal cavity did not appear to be involved. Sulfanilamide powder was placed in the wound which was closed loosely about two cigarette drains.

After an initial temperature rise to 103°, the patient improved rather rapidly for the first four days after operation and his temperature fell to 99.2°. Intravenous dextrose in Ringer's solution and sulfanilamide in normal saline by hypodermoclysis were given for the first few days. The sulfanilamide was discontinued after three days due to headache, dizziness and nausea. Following this the temperature increased somewhat and the patient felt generally ill but there was no specific complaint until the afternoon of August 25, one week after operation, when he had a severe pain in the right lower chest which was made worse by deep inspiration. About eight hours later he had a chill and his tem-

perature rose to 102.8°. He was seen by Dr. Douglas G. Chapman who found signs of a pleurisy over the involved area. He was treated symptomatically and felt improved but his temperature continued to rise to 101° and 102° each evening. His white blood count on August 28 was 22,000 and the neutrophiles were 86 per cent.

On August 29 he complained of a tightness in his chest and aching in both arms. Dr. Coleman Booker who saw him at this time said that he was "unable to find anything localizing in the patient but he just didn't look right." This description was apt for he was obviously an ill person without any specific complaint. His abdomen was tender. The liver and spleen could not be palpated. There was no clinical jaundice. That evening a second chill was had and his temperature rose to 102.6°. Neo-prontosil was started and a blood culture taken at this time was later reported as sterile. An X-ray of the chest the following day showed nothing of significance. The diaphragm was not elevated.

On the evening of August 30 a third chill occurred and this was followed by a moderate fever and later by a drenching sweat. All of these chills began, singularly enough, about six o'clock in the evening. The routine blood and urine studies were not remarkable on this date but the icteric index was 12.0 and there was a slight jaundice. Smears were negative for malaria. The abdomen was entirely normal aside from a healing appendectomy wound.

On August 31 a blood transfusion was given. Following this he felt stronger but continued to run an irregular fever. On September 5 he became nauseated and the neo-prontosil was discontinued. Later that day he had a chill but his temperature rose to only 100.8°. I was out of town and Dr. John S. Horsley, Jr., who was following the patient, suggested investigating the right urinary tract. This was done by Dr. M. P. Gordon but nothing of significance was found. A second blood culture was negative for organisms. The usual agglutination tests were also normal. Atabrine was given in the forlorn hope that malaria might be present despite repeated negative blood smears.

On September 7 two chills occurred and a second blood transfusion was given. Sulfathiazole was started and the patient became nauseated almost immediately with continued vomiting until it was discontinued. At this time the liver for the first time could be felt two finger breadths below the costal margin and it was definitely tender on pressure. The slight jaundice noted previously and the moderate elevation of the icteric index now began to recede.

The following two weeks were a discouraging repetition of the preceding ones. The fever continued in an irregular manner with mild chills and severe sweats. Sulfathiazole was resumed and vomiting again became severe. A progressive anemia necessitated further blood transfusions. A second X-ray of the chest for changes in the right base was negative. Sulfanilamide was given by hypodermoclysis but nausea and vomiting returned and forced us to discontinue it.

On September 23 neo-prontosil with sodium bromide was given with some improvement in the nausea but it was necessary to supplement the intake with intravenous dextrose. On September 25, at the suggestion of Dr. Wm. H. Higgins, nicotinic acid was substituted for the bromides and the nausea diminished immediately. His appetite increased and while a chill occurred on September 26, his general condition was definitely improved.

No chill occurred after this date and his temperature rapidly fell to normal. The tenderness disappeared from his liver and this organ could no longer be palpated beneath the costal margin. His hemoglobin increased without transfusions during the last two weeks of his hospital stay. On October 6 he was discharged from the hospital after having been afebrile the preceding nine days.

He has been seen several times since discharge and his chief complaint now is that he has gained too much weight since he left the hospital.

SUMMARY

A case of pylephlebitis following a ruptured appendix is reported.

While the diagnosis fortunately was not verified by operation or autopsy an infection was undoubtedly present in the portal system with secondary involvement of the liver.

Pylephlebitis usually results from a gangrenous appendicitis but this complication may follow infection of any organ drained by the portal vein.

Early diagnosis and operation in acute appendicitis would probably reduce the incidence of this condition by 75 per cent.

Pylephlebitis has carried a very high mortality

XUM

in the past but recent reports in the literature and the present case indicate that the sulfonamides offer much in the treatment of this infection.

The use of nicotinic acid with neo-prontosil prevented nausea and permitted the patient to take large amounts of this drug over a considerable period of time.

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AN OUTBREAK OF BOTULISM IN ORANGE COUNTY.

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There are few emergencies more demanding than that presented by an outbreak of botulism. This disease is so rare that most medical men, even those with extensive clinical experience, have never observed a case. In the period from 1899 to 1927 there were reported in the United States and Canada, including one outbreak from England and one from Argentina, a total of 151 outbreaks, or 518 cases, with 347 deaths, a mortality rate of 67 per cent. Only fifty-five of these outbreaks were proved toxicologically and bacteriologically.[1]

There are few instances in the literature of successful treatment with antitoxin. Hegler,[2] a German worker, describes two very serious cases in which administration five days after onset was undoubtedly life-saving and dramatically effective. Mackenzie[3] describes the treatment of three cases of botulism a few hours after onset. Although it is generally believed that antitoxin, in order to be effective, should be given within a few hours after ingestion of the poisoned food, there are instances of favorable results as late as five days after onset of symptoms. Because of the infrequent occurrence of botulism, the antitoxin is difficult to obtain. In the Orange County outbreak antitoxin for the treatment of only one case was available.

Diagnosis is often difficult in the isolated case. Unlike other types of food poisoning, there may be no gastrointestinal symptoms at all. Exudate may be profuse or absent. Constipation is almost always present. Dysarthria, dysphagia, hoarseness, pupillary and lid changes, absent gag reflex and pharyngeal weakness are frequently observed. Subnormal temperature, excessive thirst, dryness of the mouth or profuse exudation, hoarseness and voice changes are often early signs.

Our cases were at first mistaken for diphtheria, and it was several hours later before we were definitely certain that we were dealing with an outbreak of botulism. By this time others in the family had become ill. A summary of the case histories is given below:

CASE I—J. W.

First seen early Sunday, November 17. Physical examination revealed an acutely ill colored male, complaining of pain and difficulty in swallowing. Temperature was 101, pulse and respiration normal. Pupils were dilated and reacted sluggishly to light. There was no ptosis or photophobia. The throat and nostrils contained a thick, dirty gray exudate closely resembling a diphtheritic membrane. Heart and lungs were normal, and the abdomen was slightly distended but not painful. Bowels had not moved for two days. There was some weakness of the right leg with sluggish patellar reflexes. Because of the appearance of the throat, diphtheria was suspected, and 60,000 units of antitoxin were administered without effect. Later in the day the patient complained of inability to void, and had to be catheterized. Pulse became progressively weaker and faster, and swallowing became more difficult. The patient became restless, attempting to get out of bed and walk

around. Late in the day he became comatose, and death occurred early the following morning from cardiac failure.

CASE II—R. W.

First seen early Sunday, November 17, patient found in a comatose condition. Temperature by rectum was 103. Pulse rapid and weak. Pharynx and tonsils were covered with a grayish white membrane with much purulent material in the nose and pharynx. Gag reflex was absent. Cervical glands were enlarged. Pupils were dilated and reacted sluggishly to light. Diphtheria was suspected and 40,000 units of antitoxin were given before transferring the patient to the hospital. Death occurred on the third hospital day, having been comatose during the entire stay.

CASE III—W. W.

First seen Sunday, November 17, complaining of malaise and weakness. Later complained of difficulty in swallowing. Nose and throat clear at first, later became filled with same peculiar type of exudate. Gag reflex present at first, disappeared the next day as it became more difficult to swallow. Throat filled with exudate rendering breathing difficult during the night. Eye signs were absent at first, later became evident as ptosis, mydriasis, and diminished light reflex. The following day there were signs of consolidation in the chest and the temperature rose to 103. Pulse became weaker and more rapid. Botulism was strongly suspected, and an attempt was made to secure antitoxin. Enough to treat one case only was available and this could not be obtained until after death from cardiac failure had occurred.

CASE IV—C. W.

First became ill late Sunday, about the same time as the previous case. Complained of malaise, weakness, and difficulty in swallowing, and a dirty grayish black type of exudate with small areas of hemorrhage formed on the pharynx. No eye signs were evident at any time. Death occurred the following evening from cardiac failure.

CASE V—F. W.

Patient first noted as becoming listless and apathetic late on the afternoon of November 19. The following morning there was a definite hoarseness of her voice, and an appearance of the same type of exudate in the nose and throat. Patient complained of marked thirst and asked for water every fifteen minutes throughout the morning. Gag reflex was absent, and there was a definite lid lag of the right eye, with mydriasis and sluggish light reflex. An attempt was made to administer 10,000 units of combined Type A and Type B Botulinus antitoxin intravenously. Approximately 5,000 units had been administered when the patient suffered a marked serum shock, with an abrupt fall in blood pressure, weak thready pulse, and the appearance of an urticarial type of eruption over the arms, face, and chest. A total of 2 cc. of intravenous adrenalin was given in the next five minutes and the pulse came back and respiration increased. By late afternoon there was a noticeable change in the patient, first evident by an increased ability to swallow, and a disappearance of her hoarseness. By evening the gag reflex had returned, and the pupil reacted better to light. The lid lag also disappeared. Throughout the day temperature remained subnormal. Recovery was complete.

Botulism was not suspected until the second day when two other members of the family had become ill. At this time several empty fruit jars were found in the woodshed and the fact that five members of the family had partaken of several ears of home-canned corn approximately three days before was brought out. It was not possible to establish definitely at what time the corn had been eaten nor how much had been consumed by each patient. The mental status of the family was of a low degree and a dependable history was difficult to obtain. Suspicions were even more thoroughly aroused when one of several cats which had been living in the house mysteriously died. A hog died also about the same time.

On Monday every jar in the house was opened and taken to the laboratory for analysis. Three jars of home-canned corn found in the house showing marked spoilage, were negative for Botulinus toxin, both by feeding experiments and by animal inoculations. Culturing also gave negative results for Clostridium Botulinum. One empty jar which was found out in the yard proved to be highly interesting. Washings from this jar contained the toxin of Botulinus Type B, and a culture of the same organism was grown from the washings.

An autopsy was performed on the eleven-year-old boy, showing cloudy swelling of the liver and kidneys and a diffuse bilateral bronchopneumonia. Similar findings were obtained on the six-year-old girl

XUM

who died in the hospital. It was regrettable that an examination of the brain could not be obtained.

One hundred and twenty grams of the boy's liver were ground and extracted with 35 c.c. of physiological saline, centrifugalized and the supernatent liquid tested for the presence of toxin by inoculating mice with doses of 1 c.c., 0.5 c.c., and 0.25 c.c. Mice protected with Type B antitoxin survived while those receiving Type A antitoxin and no antitoxin at all died within forty-eight to seventy-two hours.

Liver extract filtered through a Berkfeld filter also caused death in mice, the mice showing typical symptoms.

The blood specimens were non-toxic for mice in 0.5 c.c amounts.

In evaluating the case treated with antitoxin, it is difficult to determine how much the antitoxin had to do with recovery. A marked improvement was noted during the following twelve hours, however, and it is not unlikely that the antitoxin had some effect as evidenced by the return of her gag reflex, increased ability to swallow, disappearance of thirst and voice signs, lid lag, and exudate. It should be noted, however, that this patient was the last of the five who had eaten the corn to become ill, and that she first developed signs after a five-day period had elapsed from the time of ingestion of the poisoned food. It is believed that she did not eat as much corn as the others and therefore it is hard to tell whether, without treatment, she might have recovered. There is reason to doubt this when it is realized that death has been known to follow mere tasting of contaminated food.

Mortality rates vary from 65 to 80 per cent. Myer[4] mentions a series of 119 cases, all of which were treated with antitoxin with a mortality rate of 20 per cent. Another series of seventy-five untreated cases had a mortality rate of 93 per cent.

PROPHYLAXIS OF BOTULISM

Since Botulinus toxin is most favorably produced in the absence of oxygen, it finds a fertile environment in canned foods, especially those prepared in the home by the cold pack method. Vegetables such as corn and beans are most often contaminated.

Swab and Gerald[5] enumerate the following points in the prevention of botulism, emphasizing at the same time the difficulty involved in obtaining antitoxin:

1. People should be warned not to serve food from cans which have bulging ends.
2. Never taste food which presents a peculiar odor, or from which there is escape of gas when the can is opened.
3. To cook left-overs thoroughly before serving, instead of utilizing them for salads in the raw state.
4. That cold pack methods of preserving are altogether inadequate in preventing Botulinus spoilage.
5. That foods which do not tolerate long processes of cooking without disintegration should be treated at higher temperatures for shorter intervals.
6. That no method of food canning is safe except by complete sterilization.

In conclusion the writers wish to thank Dr. William Grossmann, of the Virginia State Department of Health, Drs. Sarah Stewart and A. G. Gilliam, of the National Institute of Health, for their aid in establishing a diagnosis and obtaining antitoxin.

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THE COMMON COLD*

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This presentation of a rather difficult subject, with some of its practical implications, may contain, it is hoped, at least a spark of vitality and helpfulness to the general practitioner. It is with some misgiving that I bring it to your attention in a general sort of way. Nobody seems to know very much about it. It is, nevertheless, in the mind of the laity as well as of the physician, and becomes a challenge to our professional efficiency—The Common Cold.

Try to find some one who is not interested in the common cold. Indifferent as one might be, he is forced to take a very personal interest in it from one to four or more times a year—if he is a normal individual. What man does to the common cold comprises a bit of practically negative results; what the cold does to man is a story startling and sad. The United States Public Health Service estimates conservatively that the common cold inflicts upon this country a direct economic loss of 450 million dollars annually, not accounting for the catarrhal afflictions for which it paves the way.

There are many guesses as to etiology. It was Dr. Samuel Johnson, I believe, who attributed the pernicious thing to the irritating effects of comet dust. Another famous man contended that it was got from sitting in damp churches. Quite plausible. Primary invasion of every known bacteria has been blamed; and some of the more recent researches point toward a virus which may reduce resistance to secondary organisms, thus paving the way for the acute inflammatory process which follows exposure.

Dr. William J. Kerr stated that at the University of California, "We have not been able to transmit the common cold to susceptible persons, even though they are known to have many colds during the year, so long as we keep the environment constant, and at a comfortable level." He hinted that the defect or fault was probably a constitutional one and was connected with the autonomic nervous system. These individuals were unable to respond normally to the environment and failed to respond when the cooling power of the air was suddenly increased. To all of which Dr. Gerald Shibley[1] of Cleveland replied, "It is a fairly well known fact that explorers who have gone to the north pole for as long as two or three years, in spite of exposure to cold, to fatigue and to practically every type of elemental exposure, never get colds. The minute they hit civilization, where colds are present, back come colds again." So, who knows what causes the common cold?

The duration of the common cold, untreated, is about fifteen days; treated, it is also too often, about fifteen days, according to an old adage. Nevertheless, even for the sake of the comfort of the patient, treatment must be administered—or else, there is danger of the physician impairing either his thrifty disposition or his reputation, or both. Seriously, however, there are other reasons why conscientious professional attention should be given the common cold victim. There is reasonable hope, first, of aborting an early cold and, second, of preventing dangerous complications, such as otitis media or sinusitis.

No longer should just bed rest, two dozen soft linen handkerchiefs, and aspirin be prescribed. There are several treatments most of which have merit. Many, of course, are agreed on the value of isolation,[2] saturation, elimination,[3] and alkalization,[4] and a regimen of building up of the constitutional resistance.

Cold vaccine, containing five or six of the more common cold organisms, may be tried, especially in preventive medicine. During an epidemic of severe colds, a large group of students at Miami University, according to Stafford[5] were almost completely protected by oral vaccine therapy.

Rockwell[6] and his associates also found that oral vaccine was very effective in preventing colds. Fischbach[7] has prepared a mixture of fifteen or sixteen different organisms for vaccination purposes in his own community and has claimed to obtain immunity in a large majority of his "cold" patients.

On the other hand, Diehl, Baker and Cowan[8] made a comparative study of the value of two orally and subcutaneously administered vaccines among college students and concluded that there was no evidence of benefit from the oral vaccine and only

*Read before a joint meeting of the Staffs of the Bluefield Sanitarium, Stevens Clinic Hospital, and the Clinch Valley Clinic Hospital, and their guests, at Richlands, Va., August 27, 1941.

XUM

a relatively slight benefit from the subcutaneously administered vaccine. Two years later (1940), reporting further, this same group concluded that: "A carefully controlled study of the traditionally heat killed bacterial vaccine for the common cold reveals no evidence that it is of value in a group of cold-susceptible students at the University of Minnesota." In general my own experience leads me to agree with the implications of the latter conclusion.

Vitamin A (halibut oil) while apparently helping to build up resistance in both children and adults, especially in the winter months when leafy vegetables are scarce, is not anti-infective, according to experiments of Shibley and Spies.[1] Nevertheless, "Vitamin A intake, particularly, should be scrutinized, since this fat-soluble nutritional factor is necessary for the maintenance of physiologic integrity of mucous membranes, the first line of defense against respiratory tract invaders." (*Therapeutic Notes*, Feb., 1941).

For our own "cold" patients, Copavin (equal parts codeine and papaverine), as determined by Diehl[9] through experiments on 1,000 students, is usually prescribed. In acute colds of twenty-four to seventy-two hours duration, we have found that about 75 per cent can be aborted in twenty-four to forty-eight hours. Keeping in mind that ventilation and drainage are rock-bottom principles in preventing sinus involvement, we supplement copavin therapy with nasal sprays and other vaso-constrictor drugs, such as ephedrine in oil or as the isotonic solution, or benzedrine vapor, for use both in the office and in the home. We never prescribe oily nose drops except for daylight use, when the patient may either expel the oil by blowing the nose or swallow it. To use oil in the nose of sleeping patients, whether adult or child, is to invite slow disaster in the form of lipoid pneumonia. If night therapy is absolutely necessary we prescribe either a benzedrine inhaler or an isotonic solution of ephedrine which can do little or no harm, even if aspirated. For small children the isotonic or aqueous solution of ephedrine or the benzedrine inhaler is safer at all times.

Dr. Arthur Ewens of Atlantic City, having removed the innocuous uvulas of over 2,000 patients (staphylotomy) claims to have reduced the cold susceptibility in these patients in excess of 50 per cent. In our own series of several dozen staphylotomies in preventive cold surgery, one patient claims that his colds are more frequent and worse than ever. Perhaps this is the proverbial exception that proves the rule. My other patients, mostly children, have been non-committal.

Perhaps there is merit in this simple surgical procedure, especially when the uvula is long, boggy and irritative. Its very position favors the adverse effects of gravity, and, with its poor circulation, it may readily become the seat of an incipient cold. The dog's uvula is broad and fan-shaped, its physiological function being the reflex expulsion of foreign bodies, such as gnats and bugs, that fly into his mouth while he runs. Our ancestors doubtless ran through the wilderness with their mouths open too. Now few of us do that, or at most on rare occasions, which fact would certainly argue for the present uselessness of the innocuous uvula.

A while ago I hinted that the prompt treatment of an acute cold might not only abort the condition but prevent complicating otitis media or sinusitis. In passing, may I say a few words in reference to these frequent complications?

Too frequently a sinus infection is overlooked in children, especially in those who keep a "runny nose" for weeks after the acute cold has subsided. Fischbach claims that 65 per cent of chronic sinusitis in adults may be traced back to acute head infections in infancy and childhood. The child is born with practically fully developed antrum and sphenoid sinuses, the ethmoids and frontals usually forming in the subsequent one to three years.

You may recall having seen such children, some of whom have had their tonsils and adenoids removed, with frequently, recurring colds and lateral pharyngitis, with otitis media, acute or chronic; those whom pediatricians and general practitioners have treated for bronchial infection, and the more varied group presenting toxemia or septicemia, mental deficiencies and everything from arthritis to nephritis.

In this connection, my plea is that every general man as well as specialist learn the use of a head mirror and nasal speculum. Surgical intervention in acute sinusitis in children is rarely called for. The vast majority of them will respond to persistent medical care over a long period of time, consisting largely in building up resistance in the child and giving him adequate ventilation and drainage with vaso-constrictor drugs. Teaching the child to spit and to blow his nose properly is of the utmost im-

portance. There are adults, even, who for one reason or another have never learned this art. Some of the health magazines advocate holding the handkerchief over both nostrils when the nose is blown. This is a dangerous procedure. With a little too much force and with closing the nostrils even for a moment infection may be blown into the middle ears. The Valsalva method of inflation of the eustachian tubes is mechanically the same. My contention, therefore, is that only one nostril be closed, leaving the other open, in blowing the nose. According to Morrison[10] this should be done gently, forcing the air through the less obstructed side first, and hawking as much of the secretion as possible into the pharynx for expectoration before blowing the nose. In this way it is almost impossible to inflate the middle ear. The best method, of course, and the safest, is the peasant style when no handkerchief is used at all.

Occasionally antrum lavage must be resorted to, and sometimes more radical surgery may be necessary. Foci of infection of obstructing tissue, such as tonsils and adenoids, should be removed between attacks.

In the treatment of sinusitis in general, perhaps more in the chronic adult type of antrum infection, two recent methods deserve mention. Goodyear[11] at the ninety-second session of the American Medical Association, Cleveland, June, 1941, gave a lantern demonstration showing that the use of iodized oil (Iodochloral, Searle) greatly reduces the number of treatments usually given in acute and subacute antral infections. Turnbull[12] using a 5 per cent solution of sulfathiazole sodium (Squibb) as a nasal spray twice daily reported a series of forty-seven patients with chronic sinusitis in whom all but seven reported definite improvement and relief of symptoms following this therapy. Incidentally, he also reported striking results in the treatment of both chronic staphylococcic conjunctivitis and chronic suppurative disease of the ear with sulfathiazole. The freshly prepared solution 5 per cent was dropped into the eye without irritation or instilled into the ear every night over a long period of time without toxic symptoms. As a nasal spray, no untoward reactions were noted over a period of five months. We are now using both of these treatments as adjuncts in selected cases and hope to report at a later date our own conclusions therefrom.

May I also say a word in reference to the complication of otitis media? Following acute head inflammation it is found overwhelmingly in children who are subject to colds and who still have their adenoids harboring organisms at the mouth of the eustachian tube. In the child the eustachian tube is shorter, wider and more horizontal than in the adult. Hence the ease with which the invading organism reaches the middle ear. Because the ear-drum of a child is thicker, tougher and more slanting supero-posteriorly than in the adult, delayed adequate treatment is favorable to a further complication of acute mastoiditis.

It is our custom in early acute otitis media, where the drum is not bulging very much, to prescribe a proprietary ear drop known as "Auralgan." It apparently acts on the principle of osmosis, is soothing and in no wise obscures the existent color of the drum. It is surprising how many of these ears will clear with conservative treatment. However, if the ear-drum is definitely bulging, we feel that a myringotomy is imperative. Such an operation relieves the endangering pressure, relieves the pain and is almost certainly preventive of other complications. Besides, after the middle ear has drained and cleared, the incision usually heals without scar or impaired hearing. To wait for a drum to rupture is to invite mastoiditis, intracranial complications, or at least a large perforation in the drum which may never close, favorable to intermittent or chronic discharge.

Should conservative treatment fail or if myringotomy is performed or the drum has ruptured and a specimen of the discharge is obtainable, we make a microscopic smear to determine the infecting organism and immediately place the patient on the appropriate sulfonamide. Miraculous cures have been reported under routine treatment plus this new type of chemotherapy.[13]

After all is said and done, we must conclude that the etiology of the common cold is not definitely determined. It would appear, however, that of all the possibilities of personal prophylaxis, the building up of the patient's resistance to the common secondary invaders, together with conservative, corrective surgery and early and persistent medical treatment, offers the best promise of satisfactory results. The following points, therefore, may be stressed as being of importance:

(1) The common cold should be treated vigorously from its very inception. Copavin is the drug of choice.

(2) Nose drops, if indicated, should never be used

at night, for fear of lipoid pneumonia. Isotonic solutions of ephedrine or benzedrine vapor are safer, and especially for children at all times.

(3) The surgical removal of obstructions to ventilation and drainage is often required, particularly in children, as a cold-preventive procedure.

(4) Both child and adult should be taught the proper method of blowing the nose and expectorating.

(5) Two complications of the common cold, sinusitis and otitis media, are discussed, with special reference to routine and newer methods of treatment.

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HISTOLOGICAL STUDIES OF THE HYPOTHALAMUS

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and
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The purpose of this paper is an attempt to throw some light on the regional structures of the hypothalamus with emphasis on the distribution of cells as well as their function.

Although the first contributions to our knowledge of the hypothalamus were made by Kölliker and von Lenhossek,[1] it was E. Malone[2] who worked out the histological details of the various hypothalamic nuclei (areas) while Rioch, Wislocki, O'Leary and others recently subdivided the hypothalamus into topographical regions.

The problems which were paramount in this investigation were: the localization of both the motor-like as well as the neurosecretory cells as described by Malone, Greving, Grinker and the Scharrers.

MATERIAL AND METHODS USED

Our studies were made on six uninjected brains of normal individuals, two of which were removed at autopsy 2 to 6 hours after death; the others had the autopsies done on the second day after the exitus. Due to rapid degenerative changes in the central nervous system and also for the sake of accuracy, we are reporting only on the two brains removed 2 to 6 hours after death. Transverse vertical sections of the hypothalamus extending from just behind the anterior commissure to the level of the mammillary bodies were made. The brains were fixed in 95 per cent ethyl alcohol and stained by one of the following methods: Weil stain[3] for

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EXPLANATION OF FIGURES

Fig. 1.—Motor-like triangular cells of the anterior hypothalamus just caudal to the anterior commissure. Low power. Bodian stain.

Fig. 2.—Cell resembling a large motor cell in the anterior part of the hypothalamus just caudal to the anterior commissure. Oil. Bodian stain.

Fig. 3.—Betz-like cell of the anterior hypothalamus just behind the anterior commissure. Oil. Bodian stain.

Fig. 4.—Pyramidal cell of the motor cortex for comparison. Oil. Bodian stain.

Figs. 5 and 6.—Cells resembling anterior horn cells of the spinal cord from the anterior hypothalamus caudal to the anterior commissure. Oil. Erythrosin-toluidin blue stain.

Fig. 7.—These cells are from the same field as figure 1. Oil. Bodian stain.

Fig. 8.—Typical cells from the hypothalamus caudal to the anterior commissure. Oil. Bodian stain.

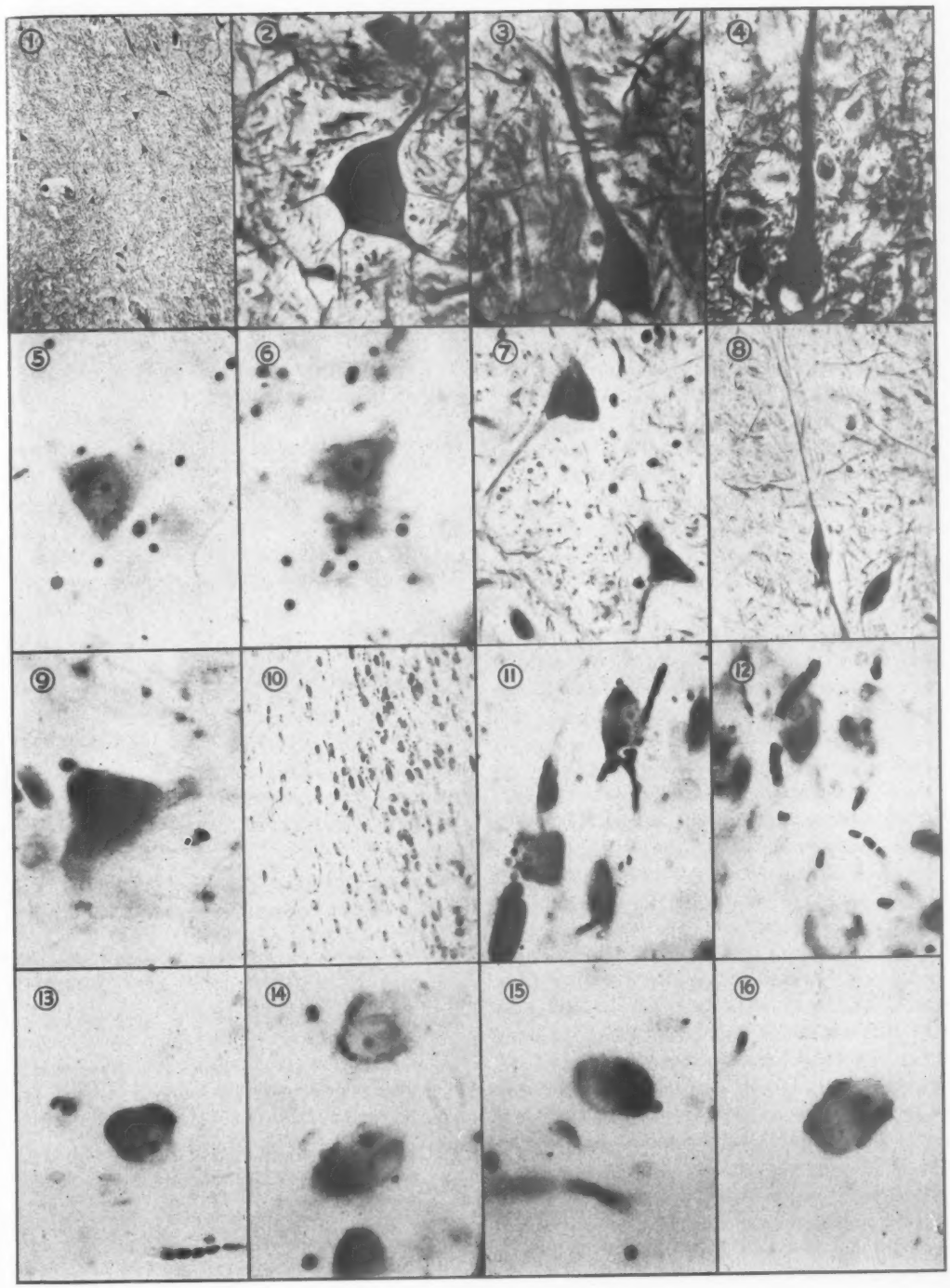
Fig. 9.—Motor-like cell of the medial hypothalamic region rostral to the mammillary bodies. Oil. Weil stain.

Fig. 10.—Rich capillary network surrounding the probable neurosecretory cells in the region of supraoptic and paraventricular nuclei. Low power. Erythrosin-toluidin blue stain.

Figs. 11 and 12.—Same field as figure 10. Oil.

Fig. 13.—Probable neurosecretory cell with vacuole and granular-like inclusions. Region of the supraoptic and paraventricular nuclei. Oil. Erythrosin-toluidin blue stain.

Figs. 14, 15 and 16.—Probable neurosecretory cells with granular-like inclusions. Area of the supraoptic and paraventricular nuclei. Oil. Erythrosin-toluidin blue stain.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myelin sheaths; erythrosin-toluidin blue stain[4] for cellular structure; Bodian silver stain[5] for axis cylinders; and Foot's modification of Masson's stain for granules.

In the available literature stress is laid on the presence of motor-like cells in the posterior and lateral regions of the hypothalamus. Our studies, however, point to a distribution of these cells not only in the above mentioned areas but also in the anterior and medial regions. The structure of these cells is identified not only by their external morphology (figures 1, 2, 3, 4) but also by the large Nissl bodies in a stripe-like arrangement similar to the Betz and anterior horn cells (figures 5 and 6). In a report on somatic movements obtained from stimulation of the hypothalamus, J. C. Hinsey[1] stated: "Our experiments show that the stimulation of areas in different parts of the hypothalamus as well as the subthalamus give, in addition to the visceral responses, somatic movements involving the head, trunk and extremities."

The above findings, as well as those of Ranson, Ingram and others, seem to indicate that not only motor-like cells but also other cortical cells, Betz-like, Golgi-like and others should be found in all hypothalamic regions, some of which are shown in figures 1 to 9, inclusive. This is probably another proof that the hypothalamus may be considered as one of the oldest parts of the brain.

Similar to the Scharrers, Gaupp and other investigators who demonstrated the presence of neurosecretory cells in the supraoptic and paraventricular regions, we studied both the nature of the cellular inclusions of these cells as well as the highly vascular network in which the cells are embedded.

The photomicrographs of these regions (figures 10, 11, 12) show an area which is pierced with a defense meshwork of blood vessels located in marked proximity to these cells. Most of the capillaries are in the long axis of the cells as if hugging them, and, according to the Scharrers, this vascular arrangement is not seen in any other part of the central nervous system. Such a distribution of blood vessels resembles very markedly that of other organs of internal secretion.

While nerve cells of other hypothalamic regions contained dust-like, greenish-brown granules of pigment scattered indiscriminately throughout the cytoplasm, many of the cells of the supraoptic and paraventricular areas were vacuolated, each vacuole separated from the nucleus by a thin wall with spherical black granules centrally located. In still other cells definite black granules could be seen (figures 14, 15, 16). In our studies the above were seen better by the erythrosintoluidin blue stain than by Foot's modification of the Masson stain used by the Scharrers.

CONCLUSIONS

An attempt was made to show that:

1. Motor-like cells are found in practically all areas of the hypothalamus.

2. These cells resemble the structure of motor cells found elsewhere, such as the Betz cells and those of the anterior horn of the spinal cord.

3. Also other types of cells of the central nervous system are found in the hypothalamus.

4. The presence of a dense capillary network, together with vacuolated cells in which granules are to be seen, point to a probable endocrine function of the anterior hypothalmic region.

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CONVULSIONS ASSOCIATED WITH GENERAL ANESTHESIA *
Report of Three Cases

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The first observation of muscular activity occurring during the administration of ether was noted in 1880. During the years of the World War, this manifestation was reported by several observers. Most of the literature on this subject comes from England. The latest review of this subject in this country, together with an original correlated clinical and experimental study, emanates from the Mayo Clinic.

Ether is the agent that has most frequently been associated with this syndrome. Most cases occurred in children or young adults. Many of these convulsions have terminated fatally.

In 1916, it was noted that epileptiform convulsions occurred frequently during the course of anesthesia in patients with an epileptic history. The largest number of reported cases, however, occurred in patients without a known epileptic history.

There is a great deal of controversy in regard to the etiology of convulsions which occur during general anesthesia. In an article on this subject there are references to eighty-eight papers by various authors. Some of the theories as to etiology sound fanciful. A British author in 1927 wrote: "It would appear the anesthetic substances act by subjecting protein particles in the plasma to sudden dehydration and then to an equally sudden hydration . . . The actual state in which the patient's protein particles happen to be before the anesthetic is administered must play a greater part in the production of toxic symptoms."

Another British author in 1931 advanced the hypothesis that "increased vascularity of the cortex cerebri, more particularly of the Rolandic area, produced by histamine effect, is the underlying cause."

The present state of knowledge or lack of knowledge concerning this syndrome, as well as its distressing dramatic manifestations, makes the report of cases desirable. It may stress the importance of being on the alert for such a condition.

REPORT OF CASES

Case 1. B. H. D. (4552) four years old, was first examined March 2, 1932. Three and one-half months previous to examination, he had a convulsion. Since then, he suffered what the parents described as "fainting spells". Examination, with the exception of hypertrophy, or perhaps infection, of the tonsils, and an adherent prepuce, was entirely negative. Tonsillectomy and circumcision were advised. Three months later (May 21, 1932) both operations were performed under ether anesthesia. The child reacted normally from the anesthetic, recognized his parents, and a few hours later took water and ate some ice cream. About nine hours after the anesthetic, he was seized with epileptiform convulsions and died in an epileptic seizure.

This case varies from the typical reported cases of epileptiform convulsions during ether anesthesia in that it occurred, not during, but many hours after, the administration of the anesthetic.

Case 2. B. Y. (8658) was first seen on September 11, 1936, at three years and three months of age. The complaint was "whistling constantly until he is breathless, a constant discharge from the right nostril since birth, refusal to play with others, refusal to talk to others, refusal to play with toys, and the desire to be alone at all times." Examination did not reveal anything abnormal, except congenital obstruction of the posterior nares. He was referred to a rhinologist, who relieved the obstruction by operative procedure. The child was seen again on April 19, 1937, when he was three years and ten months old. The complaint then was that he was nervous. His breathing on that occasion was rather rapid and sounded asthmatic. While apprehensive and very nervous, he did not give the impression of being in any way mentally abnormal. Examination revealed a mild degree of undernutrition and anemia. May 30, 1938, eleven months after an attack of whooping cough, he was seen again (five years of age). The parents stated that the boy was weak, though his general appearance was healthy. His breathing was noisy. Examination did not show any asthma. The tonsils were found to be enlarged. Sedative medication, tonics, cod liver oil, and adequate rest were prescribed. The parents were told that the noisy breathing might be due to adenoids aggravated by enlargement of the tonsils. Tonsillectomy and ade-

*Read before the South Piedmont Medical Society, April 17, 1941, at Danville, Va.

noidectomy were recommended. Subsequently, the child was taken to Duke Hospital. Hyperpnea and marked hypertrophy of the tonsils and adenoids, stenosis of the right naris, posteriorly, and lack of normal rise in the blood-sugar curve were noted. (Fasting blood-sugar, 78 mg. per 100 cc.; thirty minutes, 101 mg. per 100 cc.; one hour, 86 mg. per 100 cc.; two hours, 82 mg. per 100 cc.; three hours, 80 mg. per 100 cc.) Tonsillectomy and adenoidectomy were recommended. My own opinion was that the blood-sugar curve did not deviate from the normal and that a fasting blood-sugar of 78 mg. per 100 cc. of blood did not suggest a hypoglycemia, even though the rise in sugar after thirty minutes was only 21 mg. September 3, 1938, at five years and two months of age, tonsillectomy and adenoidectomy were performed. He reacted normally to the operation. The morning following the operation the child was in a profound coma and slightly cyanotic. Breathing was fast and labored, and the pulse faint and rapid. 20 cc. of 5 per cent dextrose solution were given in the external jugular vein. Blood-sugar determination in the laboratory before administration of the dextrose was reported as 30 mg. per 100 cc. A few hours later the pulse was imperceptible and the child looked moribund. 20 cc. of 50 per cent glucose were given in an arm vein, followed by 100 cc. of 5 per cent dextrose in Ringer's solution. The general appearance of the child and the pulse improved rapidly. Towards evening, his pulse was full and strong; he was able to take food. Monday, September 5, he seemed well. Tuesday, September 6, the child was taken home in apparently good condition. A few hours later he became cyanotic, dyspneic, and comatose. 20 cc. of 50 per cent glucose were administered intravenously and 5 cc. of calcium gluconate intramuscularly. He regained consciousness slowly. The temperature was 103.7. Generalized twitchings or athetoid movements of the upper extremity were noticed. A blood-sugar, taken at 11 A. M., before administration of glucose, showed 133.3 mg. per 100 cc. Blood-sugar at 5 P. M. was 133.3 mg. per 100 cc. The child progressively improved. Sunday, September 11, he appeared to be normal. (The finding of 30 mg. per 100 cc. of blood in the blood-sugar determination at the hospital was perhaps due to error.)

April, 1939, when he was five years and ten months, he had a typical grand mal convulsion. Since then, he has been suffering marked mental deterioration.

In retrospect, it would seem that since early childhood he has been suffering from an atypical form of epilepsy—perhaps *petit mal*. The periods of nervousness, which the parents have observed throughout the years, might have been merely the prodroma of *petit mal*, lasting only a second, which have never been recognized.

Case 3. J. G. C. (8199) was first examined July 15, 1939, when he was two years of age. The complaint then was "nervousness, lack of appetite, constipation, and the passing of a roundworm two weeks previous". Examination did not reveal anything abnormal. Simple dietetic measures and an iron preparation were prescribed. July 27, 1940, at three years of age, laparotomy was performed for a ruptured appendix. The appendix was removed, drains were inserted, and the abdomen closed in the usual manner. After the last skin suture had been put in, the child had typical epileptiform seizures, which terminated fatally.

The convulsions in the last case may not have been due to anesthesia. It is possible that they were due to embolus, yet, because of the possibility of their having been due to anesthesia, the report of this case seems justified.

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EXPERIENCES WITH PARAVERTEBRAL BLOCK OF LUMBAR SYMPATHETIC TRUNK*

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The beneficial effect of novocain infiltration of the lumbar sympathetic trunk in thrombophlebitis of the lower extremity was first reported by Leriche[1] in 1934. Ochsner[2,3,4] and his associates in this country have reported extensive experiences with this procedure in the same condition. They have also shown that the symptoms and sequelae of thrombophlebitis are due to disturbed physiology as a result of extensive clinical and experimental observations,[5] which have given a logical basis for the paravertebral injection of the lumbar sympathetic trunk with novocain. Briefly, we shall review the physiopathology of thrombophlebitis and cite some of the experiences with the procedure in this condition and also in certain other pathological vascular conditions at the Medical College of Virginia and in our own private practice.

A balance is normally maintained between the arterial, venous and lymphatic circulations of the extremities by the sympathetic system. It has been recognized that certain pathological conditions, such as thrombo-angiitis obliterans, through reflex paths by way of the sympathetic trunk, cause vasospasm. Oschner has shown that a similar type of disturbed vasospastic state exists in thrombophlebitis.

PHYSIOPATHOLOGY

It has been generally held that the edema associated with thrombophlebitis is the result of the mechanical blocking of the venous system by the intravascular clot, and also by the obstruction of the lymphatic system by perivenous inflammatory changes, this in turn producing an increased transudation of vascular fluids into the perivascular spaces. The fact that the ligation of the main venous trunk of an extremity does not produce edema is against this theory. Leriche, in his original report in 1934, felt that the edema was the result of venous spasm. Ochsner has further elaborated on this theory and feels that there is an additional factor of arteriospasm that is even of greater importance. To explain this, the normal physiology of the exchange of fluids between the vessels and tissues must be briefly reviewed. There is a balance between the amount of fluid going out of vessels into tissues and the amount going out of the tissues into vessels. The difference in pressures in the intravascular and perivascular spaces, or filtration pressure, favors the passage of fluid into the tissues. The passage of fluid from tissues into vessels, on the other hand, is favored by the greater osmotic pressure existing in the vessels and by the lymphatic flow, which, in turn, is dependent on the arterial pressure. As a result of clinical and experimental observations by Ochsner and his associates, it has been shown that venous spasm causes an increase in the filtration pressure, which favors the passage of fluid from vessels into the tissue spaces. Arteriospasm causes a decrease in arteriolar pressure, which results in a decrease in the lymphatic flow, which, in turn, causes a decrease in the return of fluid from the tissue spaces into the lymphatic vessels. In addition, the anoxemia resulting from the decreased arterial flow causes an increase in the permeability of the capillary endothelium, which results in a greater escape of fluid from the vessels. Finally, the accumulation of proteins in the tissues tends to upset the osmotic pressure, with a resulting diminishment of the flow of fluids from the tissues into the vessels. It has been shown that the vasospasm, arterial and venous, is initiated by impulses from the thrombosed segment through the sympathetic nervous system. The blockage of this pathway, either by injection of novocain or surgical excision, will overcome the condition and cause a rapid return to the normal physiological state. Our experiences, and those of other observers, have been that there has been a marked improvement in all cases of thrombophlebitis in which the lumbar sympathetic trunk has been injected. The injection should be repeated every two or three days until all symptoms have subsided. There has been almost immediate relief of pain, followed by a rapid return of the temperature to normal and a decrease in edema, if present. The course has been shortened from an average of six to eight weeks to two weeks. Most encouraging results have been obtained in the acute cases, but improve-

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ment has also been noted in a number of instances of chronic thrombophlebitis.

ACUTE THROMBOPHLEBITIS

Four cases of acute thrombophlebitis have been injected with novocain. In only one of these was the injection repeated. Each of these patients had fever ranging between 100 and 103 F., and, following the injection, there was a fairly rapid return of temperature to normal. With one exception, these patients were pronounced as well within two weeks, or less, from the time the thrombophlebitis was first diagnosed. In the other case, all symptoms and signs had completely disappeared three weeks after the onset. Edema was only of significance in one patient. This case history is of interest.

CASE 1.—G. S., a colored female, aged forty-four years, was admitted to St. Philip Hospital, December 9, 1939, for removal of a large fibromyomata uteri that extended up to the level of the ensiform cartilage. Because of an upper respiratory infection, she was not immediately operated upon. On December 15, 1939, the left leg was found to be swollen, red and hot to palpation, and a diagnosis of left femoral thrombophlebitis was made. The left lumbar sympathetic trunk was injected with novocain on December 18, 1939. The temperature, which had been ranging between 100 and 102 F., was normal by December 22. The edema also rapidly decreased and the leg was pronounced as well on December 24, 1939, nine days after diagnosis was first made. A supravaginal hysterectomy was done on December 28, 1939. The postoperative course was uneventful and the patient was discharged January 12, 1940. The measurements of the two legs in this case were as follows:

MEASUREMENTS	RIGHT (NORMAL)	LEFT 12/18/39	LEFT 12/20/39	LEFT 12/22/39	LEFT 12/24/39
Foot	24.5 cm.	27.7 cm.	24.0 cm.	22.5 cm.	22.0 cm.
Ankle	20.5 cm.	24.0 cm.	24.0 cm.		
Calf	28.5 cm.	35.0 cm.	35.0 cm.	34.0 cm.	32.0 cm.
Knee	35.5 cm.	41.5 cm.			
Low thigh	44.5 cm.	51.0 cm.	50.0 cm.	49.5 cm.	45.0 cm.

CHRONIC THROMBOPHLEBITIS

The lumbar sympathetic trunk has also been injected in patients with edema of extremities due to chronic thrombophlebitis or chronic lymphedema. There have been four of these patients, two of them having been injected with alcohol and two with novocain. All four cases showed a rapid decrease in the edema, and, when last heard from, had had no recurrence of it. In one patient, the result was so dramatic that the case history will be briefly cited.

CASE 2.—A. L. P., a white female, aged sixty-five, was seen in consultation on February 9, 1941, with regard to the advisability of injection of the lumbar sympathetic trunk because of thrombophlebitis of the right femoral vein, which had been present approximately four months. The right leg had suddenly become red, tender and swollen about October 9, 1940, for no apparent reason. She was admitted to a local hospital for study and treatment on October 19, 1940. A thorough examination did not reveal any possible focus of infection or any other pathology. The treatment consisted of elevation of the leg with hot packs and heat cradle. This therapy was carried out for a period of four weeks without any decrease in the swelling of the right leg. Several days before discharge home on November 17, 1940, the left leg became slightly swollen, red and tender. The same therapy was continued at home, and the patient was still confined to her bed when seen on February 9, 1941. The swelling of the left leg, in the meantime, had completely subsided, but there was still marked edema of the right extremity. The right lumbar sympathetic trunk was injected with absolute alcohol on February 10, 1941. The right foot, which had felt cold to the patient, became warm within five minutes after the injection. The edema and tenderness rapidly subsided and the patient was able to go to church on Easter Sunday, April 13, 1941. At the present time the patient still has edema of both ankles after being up all day, but this subsides during the night. The measurements in this case during the hospital admission were as follows:

RIGHT LEG	8/23/40	8/30/40	11/5/40	11/15/40
Ankle	8½ in.	8 in.	7½ in.	8¼ in.
Calf	15¼ in.	14½ in.	13¼ in.	14½ in.
Knee	15½ in.	16 in.	15 in.	16½ in.

The following measurements show the decrease in the circumference of the leg following alcohol injection of the lumbar sympathetic trunk on February 10, 1941:

	LEFT-NORMAL	RIGHT 2/10/41	RIGHT 2/17/41	RIGHT 3/3/41
Ankle	8¾ in.	10½ in.	11 in.	9¼ in.
Lower 1/3 Leg	10 in.	12 in.	12½ in.	10¼ in.
Mid Leg	12½ in.	14 in.	14½ in.	12½ in.
Calf	14 in.	16½ in.	17 in.	14 in.

	RIGHT—5/10/41	LEFT—5/10/41
Ankle	9¾ in.	9¼ in.
Lower 1/3 Leg	12½ in.	12½ in.
Calf	15 in.	15 in.

Measurements are circumferences at indicated levels.

ISCHEMIC GANGRENE

It is not generally realized the extent to which the sympathetic system exerts a vasospastic effect on the collateral circulation of the extremities. The dilatation of the collateral channels, by blocking the sympathetic trunk, may be sufficient to prevent the development of ischemic gangrene in such conditions as ligature of major peripheral vessels in trauma, aneurysm operations and also in cases of arterial embolism. The writer,[6] in association with Lehman and Murphey, has shown, experimentally, that in rabbits lumbar sympathectomy reduces the instance of gangrene following ligation of the common and external iliac arteries from 76.9 per cent to 43.7 per cent, which indicates what may be expected in the human. Ochsner[7] has reported four cases of arterial embolism in which the lumbar sympathetic trunk was injected without the development of ischemic gangrene in any patient. The gangrene rate in arterial embolism in several series, which have included a large number of cases in which embolectomy was done, has been reported at 40 to 70 per cent. The report of one case of arterial embolism that was injected follows:

CASE 3.—M. C. M., a white female, aged seventy-four, was first seen at home in surgical consultation on January 5, 1941, because of dry gangrene of the left lower leg, which had already begun to demarcate at the junction of the upper and middle thirds of the lower leg. Ten days before, the patient had first complained of pain in the right leg and foot. The gangrene was first noticed three days before consultation. The patient had arteriosclerotic heart disease and was fibrillating. The peripheral vessels were arteriosclerotic and no pulsation of any of the major vessels could be made out in either extremity. A diagnosis of gangrene due to arteriosclerosis obliterans was made. The patient was admitted to the Retreat for the Sick Hospital, January 6, 1941. Examination at this time revealed that she was a mild diabetic. Due to a temporary mental disturbance, the left leg was not amputated until January 10, 1941, when a midthigh amputation was done under spinal anesthesia. At operation a clot was found in the femoral artery at the level of amputation. In view of this finding with a fibrillating heart, the diagnosis was changed to ischemic gangrene, due to arterial embolism. Convalescence was uneventful until late in the evening of January 18, 1941, when the patient suddenly complained of pain and coldness in the right foot. Attention, unfortunately, was not called to this until the next day. Examination at that time, approximately fourteen hours after the onset of symptoms, showed a demarcation between warmth above, and coldness below, at the level of the midthigh. There was also a definite bluish discoloration of the tissues about the ankle. The femoral artery was felt pulsating at the fossa ovale, but no pulsations could be made out below this point. A diagnosis of arterial embolism, with beginning ischemic gangrene, was made. The right lumbar sympathetic trunk was injected with alcohol and the leg wrapped in cotton wadding and a blanket. Papaverine Hydrochloride, grains one-fourth, was given every four hours. The morning after the injection, the leg was warm down to a point midway between the knee and ankle. By the evening of this day, the warmth extended to the ankle. The next morning, the second day after the injection, the entire leg was found to be warm. The discoloration about the ankle rapidly disappeared and the patient was discharged on January 27, 1941; and, when we last heard from her, the circulation of the extremity was adequate.

The collateral circulation may have been sufficient to have taken care of this extremity, but, certainly, the injection of the lumbar sympathetic trunk dilated all of the channels to the fullest extent. One other patient with this condition has been injected but the involved extremity was already in an advanced stage of gangrene, the injection only being done as amputation was out of the question, due to the patient's age and poor general condition.

With some hesitation as to any possible benefit that might result, eight cases of arteriosclerosis obliterans, with deficient circulation in the extremities, resulting in various stages of gangrene, have been injected. We have been surprised at the increase in the temperature as noted by the palpating hand in most of these patients, and also at the relief of pain whenever present. In six of these patients, marked improvement in the gangrene resulted, and possibly a major amputation prevented. In one of the unimproved patients, the gangrene involved the entire foot

at the time of the injection, and no improvement could have been expected following this. In the other patient, one toe had to be amputated, due to progression of the gangrene, in spite of the injection. It is our opinion that lumbar sympathetic trunk injections will tide many patients over an acute local gangrene and prevent a major amputation. To say the least, the injection will establish the best available circulation to the extremity.

Three patients with bilateral frost bite have also been injected. Improvement was noted in all but one extremity. This had to be amputated because of the development of a gas bacillus infection.

TECHNIQUE OF INJECTION

The technique of lumbar sympathetic block is as follows: The patient is placed in the lateral position with the side to be injected "up". Regular spinal needles are inserted at the level of the first, second, third and fourth lumbar vertebrae at points two finger breadths lateral and on the level with the lower border of the spinous processes. The needles are inserted vertically until the transverse processes are impinged upon. The direction of the needle is then altered so that it is directed over the process and slightly inward. It is inserted for a distance of five centimeters, which should bring the point of the needle in close proximity to the lumbar sympathetic trunk lying along the side of the body of the vertebra. Five cubic centimeters of novocain are injected into each needle, after first withdrawing the plunger of the syringe to be certain that the needle is not in a major vessel. Within a very few minutes, a noticeable increase in temperature over the extremity should be evident to the patient and also by palpation to the observer. A slight flushing of the skin usually becomes noticeable. Ochsner has also remarked on the dryness of the skin and also on the fact that the veins become more prominent on the injected side. In some few instances, we have injected absolute alcohol after we have been certain of the effect of the novocain injection, but Ochsner[8] has recently reported that some of these cases in his hands have had alcoholic neuritis, which has caused a very painful back. It is believed that repeated injections with novocain is the better procedure when a prolonged effect is desired. A surgical excision of the lumbar sympathetic trunk should be done to produce a more permanent result in chronic cases which have shown improvement following the novocain injection.

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Medical Arts Building.

BLOOD PRESSURE IN RELATION TO AGE, WEIGHT, AND HEIGHT

An Analysis of 15,225 Blood Pressure Determinations

ALBERT G. SCHNURMAN, M.D.,
Radford, Virginia.

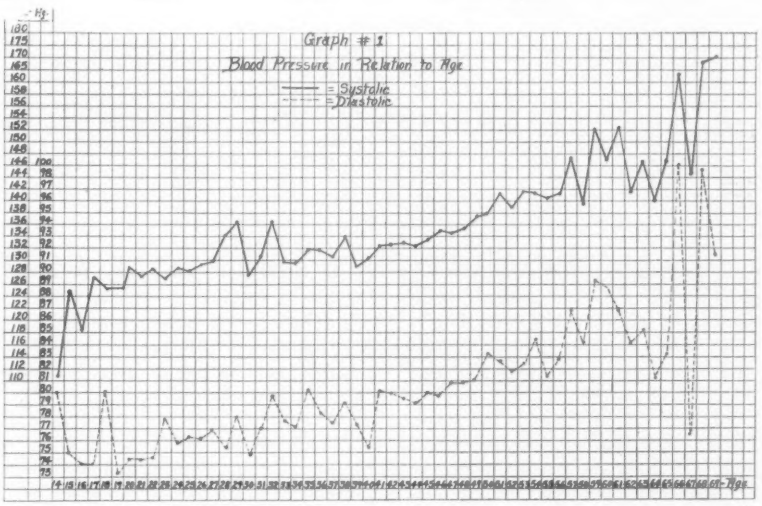
In the course of the routine pre-employment examinations at the Radford Ordnance Works, a study of the relation between blood pressure for each age, weight, and height in a group of 15,225 male applicants was made.

The blood pressure determinations were obtained

TABLE No. 1

BLOOD PRESSURE IN RELATION TO AGE

AGE	NUMBER	BLOOD PRESSURE AVERAGE SYSTOLIC	BLOOD PRESSURE AVERAGE DIASTOLIC
14	1	110.0	80.0
15	2	125.0	75.0
16	10	118.4	74.0
17	41	127.9	74.0
18	431	125.2	80.1
19	550	125.4	73.2
20	594	128.3	74.5
21	653	127.4	74.4
22	299	128.3	74.6
23	685	127.0	77.9
24	666	128.5	75.8
25	621	128.1	76.4
26	646	129.4	76.1
27	623	129.8	76.9
28	540	134.0	75.3
29	519	136.1	78.0
30	562	127.8	74.8
31	505	130.3	78.0
32	412	136.2	80.7
33	480	129.9	77.6
34	400	129.7	77.1
35	418	131.9	80.3
36	388	131.9	78.4
37	355	130.6	78.4
38	368	133.9	79.1
39	319	129.0	77.4
40	363	130.2	75.3
41	276	132.2	80.3
42	313	132.6	80.0
43	270	132.9	79.6
44	251	132.5	79.1
45	255	133.6	80.0
46	212	134.8	79.8
47	174	134.7	80.8
48	227	135.4	80.9
49	158	137.2	81.0
50	165	137.9	83.2
51	126	141.1	82.7
52	147	139.0	81.9
53	99	141.8	82.5
54	135	141.5	84.5
55	112	140.7	81.5
56	98	141.3	82.9
57	61	147.5	86.9
58	67	139.8	84.3
59	50	152.0	89.4
60	45	147.2	88.8
61	21	152.3	86.9
62	29	141.8	84.2
63	19	146.3	85.1
64	16	140.0	81.2
65	13	147.1	83.2
66	10	163.6	100.0
67	6	144.3	76.6
68	5	168.4	99.4
69	7	170.0	91.4
70	1	130.0	70.0
71	2	110.0	70.0
72	1	150.0	80.0
73	1	180.0	104.0
74	1	144.0	94.0
75	0	----	---
76	0	----	---
77	1	180.00	100.0
Total	15,225		



with the applicant seated, using standard, mercurial sphygmo-manometers, with the cuff applied just above the right elbow, auscultation being applied at the distal end of the brachial artery.

These data include all applicants, i. e., those who passed the examination and those who were rejected

because of hypertension, hypotension and all other causes.

The average systolic and diastolic pressures were obtained simply by adding all the figures in each group and dividing the total by the number of men in each group.

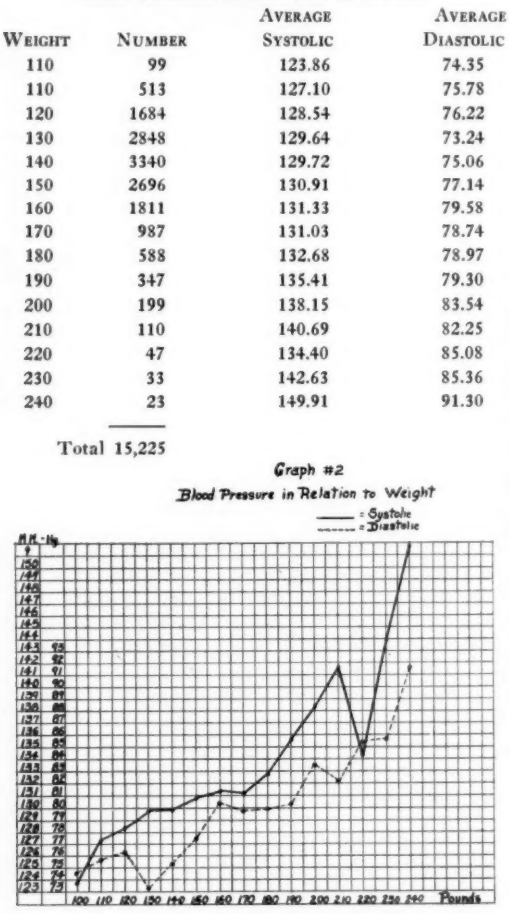
A study of Table No. 1, which is illustrated by Graph No. 1, reveals that there is a definite correlation between age and blood pressure. This is true for both systolic and diastolic pressures but is more obvious for the systolic.

A study of Table No. 2, which is illustrated by Graph No. 2, reveals that there is a definite correlation between weight and blood pressure which applies alike to both the systolic and the diastolic.

TABLE No. 2

BLOOD PRESSURE IN RELATION TO WEIGHT

WEIGHT	NUMBER	AVERAGE SYSTOLIC	AVERAGE DIASTOLIC
110	99	123.86	74.35
110	513	127.10	75.78
120	1684	128.54	76.22
130	2848	129.64	73.24
140	3340	129.72	75.06
150	2696	130.91	77.14
160	1811	131.33	79.58
170	987	131.03	78.74
180	588	132.68	78.97
190	347	135.41	79.30
200	199	138.15	83.54
210	110	140.69	82.25
220	47	134.40	85.08
230	33	142.63	85.36
240	23	149.91	91.30
Total	15,225		

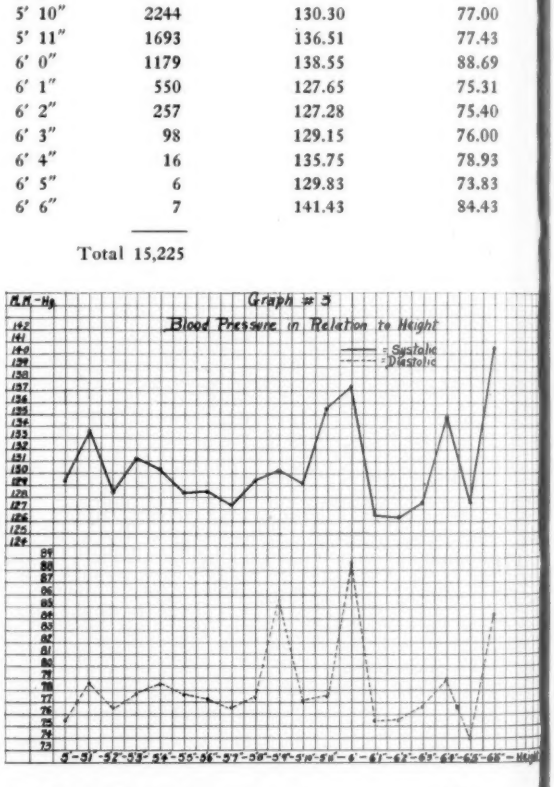

Graph #2
Blood Pressure in Relation to Weight
= Systolic
= Diastolic
M.M.-Hg
100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 Pounds

A study of Table No. 3, illustrated by Graph No. 3, reveals that there is no correlation at all between height and blood pressure either for systolic or diastolic.

TABLE No. 3

BLOOD PRESSURE IN RELATION TO HEIGHT

HEIGHT	NUMBER	AVERAGE SYSTOLIC	AVERAGE DIASTOLIC
5'	16	130	75
5' 1"	20	134	78
5' 2"	53	129	76
5' 3"	110	132	77
5' 4"	306	131.33	78.19
5' 5"	703	129.41	77.77
5' 6"	1200	129.64	77.05
5' 7"	1799	128.39	76.58
5' 8"	2118	130.44	77.34
5' 9"	2650	131.37	85.62
5' 10"	2244	130.30	77.00
5' 11"	1693	136.51	77.43
6' 0"	1179	138.55	88.69
6' 1"	550	127.65	75.31
6' 2"	257	127.28	75.40
6' 3"	98	129.15	76.00
6' 4"	16	135.75	78.93
6' 5"	6	129.83	73.83
6' 6"	7	141.43	84.43
Total	15,225		


Graph # 3
Blood Pressure in Relation to Height
= Systolic
= Diastolic
M.M.-Hg
5'-0" 5'-1" 5'-2" 5'-3" 5'-4" 5'-5" 5'-6" 5'-7" 5'-8" 5'-9" 5'-10" 5'-11" 6'-0" 6'-1" 6'-2" 6'-3" 6'-4" 6'-5" 6'-6" Height

SUMMARY

1. Blood pressure increases proportionately to age and weight.

2. Blood pressure is not correlated with height.

Miscellaneous

Average Family Medical Bill Under $100 a Year*.

Families living on farms, in villages and small cities in the United States, spend approximately 5 per cent of their annual income, or one dollar out of each twenty earned, for medical care.

Their annual bills average less than $100.00. Amounts spent tend to increase with income, but the percentage of outlay for medical attention on the part of those with small incomes is relatively larger than those in the upper brackets.

Expenditures of farm families in this respect are smaller than those of small-city and village families with comparable incomes, especially at the higher levels.

These are some of the facts brought to light in a survey made by the U. S. Department of Agriculture in cooperation with the Work Projects Administration, and just published in a booklet entitled "Family Expenditures for Medical Care".

The survey, conducted in connection with the study of consumer purchases undertaken to provide comprehensive data on the income and consumption habits of American families, covered selected groups of families living in twenty typical small cities, 140 villages, and sixty-four counties of twelve farm sections in five regions of the country. The project was financed chiefly by WPA funds.

Low-income families tend to economize on dental care, the report reveals. Fewer than half of those in income classes below $750 had outlays for services of dentists. The proportion increased with income, but even at the upper end of the income distribution where presumably families could afford routine dental examinations, expenditures for this purpose were by no means universal. Less than four-fifths of the families in the upper income units included dental care in their budgets.

Approximately one-tenth or fewer of the families in most income classes below $2,000 listed expenditures for services of oculists, nurses, surgeons or other special practitioners, or had special examinations. At the higher levels of income the proportion frequently was somewhat greater.

Hospital care was also one of the less used types of services, but there was considerable variation in the proportion of families making such outlays in the different income classes and among the various groups studied.

Medicine and drugs were much more widely resorted to, being bought by about three-fourths of the families in the small-city, village and farm groups. Average expenditures for these items amounted to $10 or less a year at most income levels below $1,500. At higher levels they tended to be greater, but seldom exceeded $25 annually.

Some families, especially in the lower income classes, restricted their outlays for medical care to purchases of medicines and drugs. That most of them wanted medical services as well as medicine and drugs but were hesitant about spending the money, is indicated by the marked decline in the proportionate number of families so limiting their expenditures when incomes increased.

The great majority of families studied—nine-tenths or more to be exact—in each of the nine groups of farm, village and small-city families spent something for medical care. But at most income levels, even those at the upper end of the distribution, there were families with no expenditures for this budget item.

However, some received free services from family members or friends, and some from governmental and private agencies. Those receiving free care from such agencies were comparatively few in number, largely because relief families were excluded from the study.

Services of physicians, surgeons and other practitioners, dentists, oculists, nurses and clinic visits accounted for seven-tenths of the total medical bill of all families studied in the three groups—city, village and farm. Medicines, drugs, eyeglasses and other medical supplies made up approximately 15 to 25 per cent of the total outlay. Health and accident insurance took about 10 per cent of the total in most city and village units, and a smaller proportion in the majority of farm sections.

*Prepared by Work Projects Administration.

Public Health Statistics

I. C. RIGGIN, M.D.,
State Health Commissioner of Virginia.

The report of the Bureau of Communicable Diseases of the State Department of Health for September, 1941, compared with the same month in 1940 and for the period of January through Sep-

tember, 1941, compared with the same period in 1940 follows:

	Sept. 1941	Sept. 1940	Jan.-Sept. 1941	Jan.-Sept. 1940
Typhoid and Paratyphoid Fever	55	58	188	188
Diarrhea and Dysentery	999	417	4,140	1,584
Measles	106	42	34,622	3,488
Scarlet Fever	58	62	1,019	1,161
Diphtheria	53	44	314	404
Poliomyelitis	38	81	88	124
Meningitis	10	2	90	57
Undulant Fever	1	5	9	18
Rocky Mountain Spotted Fever	7	3	32	41
Tularemia	0	8	20	37

IMPROVING THE CARE OF PREMATURE INFANTS

Infant mortality has been lowered considerably in Virginia, and in the majority of the States, during the past twenty years. In the age groups from the second to the twelfth month, the reduction generally has been outstanding. However, deaths of infants during the first month of life have been influenced but little. Slightly more than one-half of the infant deaths in Virginia occur during the first month of life; and approximately one-half of the neonatal mortality is ascribed to prematurity. In about one-half of the deaths due to prematurity conditions of the mother have been reported as causal factors.

In Virginia, during the past several years, efforts have been directed towards the improvement generally of the maternal and child health program. Clinics for indigent prenatal, postnatal and infant patients, with the interest and support of local practicing physicians, have been established in considerable number. Now that these basic services for mothers and children are well established, consideration is being given to developing other much needed and related services.

Physicians interested in providing care for premature and immature infants have felt handicapped by the lack of arrangements for such care in many hospitals. While deficiencies in physical equipment, including incubators and separate nurseries for prematures, has often been a problem, the outstanding difficulty frequently has been the lack of specialized nursing services, despite the fact that such services represent the most important simple factor in any program to reduce the deaths of premature and immature infants.

In order that hospitals in Virginia may be given an opportunity to improve their services, when such improvement is indicated, intensive training in the nursing care of premature infants has been made available. In this connection the State Department of Health, in cooperation with the management and staff of a general municipal hospital with an outstanding obstetric and pediatric service, established a Premature Station and Training Center on October 1, 1940, at a central point within the State. For the first three months, the premature nursing services were supervised by an experienced nurse-supervisor, obtained on a loan basis from the Sarah Morris Hospital in Chicago. Local nurse-supervisors were given special training, and a Station established according to approved standards.

In addition to local services provided, trainees who are graduate nurses with experience in pediatric nursing from various hospitals throughout the State, are offered intensive training in the care of premature infants at the training center for a period of two months. Only two trainees are accepted for any one period. They are given practical experience and didactic instruction. Supervised experience thus is obtained in the nursing care of premature, immature, and normal newborn infants.

Applications from hospitals desiring to have one of their nurses receive this training is made through the State Department of Health. There is no expense to the individual nurse or to the hospital sending the nurse. The nurse-trainees, upon completion of their training, are morally obligated to return to their own hospitals to develop the nursing care of prematures there. Physical equipment of the Training Center contains all the essentials but is relatively simple. One of the advantages of this situation is that the nurses from the smaller hospitals are more readily inclined to attempt to obtain comparatively inexpensive equipment on return to their own institutions.

During the past five years much experimental work with various types of incubators has been conducted by interested staff members of the State Department of Health. A satisfactory incubator, the result of the construction and clinical use of numerous models, has been developed and made available. Patent rights are controlled by the Virginia State Department of Health. This makes possible the furnishing of satisfactory incubators to hospitals in the State on a loan proposition or at a cost which the average hospital easily can afford. "The Virginia Incubator" is relatively simple to operate, provides controlled heat and humidity, with other necessary

and desirable features, and meets the requirements for incubators that recently have been established by the U. S. Bureau of Standards.

A plan has been developed whereby a State Department of Health incubator is made available gratis to those hospitals developing specialized nursing services for premature infants.

While an incubator is a useful accessory in the proper care of premature infants, its importance is quite secondary to the development of specialized nursing service.

Nine representative hospitals, in widely separated areas, have had a nurse complete the course given at the Training Center.

The value of this training has been demonstrated so effectively that it will be continued until all hospitals in the State have been given an opportunity to secure this experience for one or more of their nursing personnel.

Mental Hygiene Activities

It is something of a jolt to one's belief in many things to find that by and large, *en masse*, and on the whole the human personality is the same now as it has been since the beginning of history. In some minor ways reactions of groups have changed, but take the average man now, compare his behavior in similar circumstances with what is known of that of the ancient Egyptian, and the same jealousies, hates, loves are found, as well as other more abnormal forms of personality reactions.

When man became erect undoubtedly his personality changed, but I doubt if any such change has since occurred. Altruism as a general reaction is still in its infancy. The abolishing of slavery, the freeing of women and, recently, the emancipation of children, are all types of human behavior that are based on reactions that are not the general or, shall we say, common reactions of humankind.

The medical history of ancient days clearly delineates most of the abnormal personality responses. Egyptian therapy for the psychoneuroses and melancholia, as well as the other disorders that are now found in and out of our State Hospitals, sounds quite modern, even advanced in some respects. The descriptions by Greek physicians leave no doubt that they were seeing and treating many, if not all the forms of mental disease that the medical profession of today has to cope with. Indeed, since the so-called normal reactions of the personality have not changed, there is very little reason to think that the abnormal methods of response should change their form. We can conclude then that dementia praecox is as old as history, that melancholia is as ancient or perhaps more ancient than cancer, while the psychoneuroses as such appeared long before tuberculosis. We must realize also that stealing and killing are still among the fine arts. Dueling was legal until the last century. Mass killing is still extolled as the greatest of arts, and we still make heroes of those who manage the slaughter. The Indian boy was taught stealing instead of arithmetic; the politician is suspected of grafting off the public funds, while the shrewd business man studies to stay within the law during his chicaneries. Lying also is widely accepted. Note the cigarette "ads" which decorate our highways.

Abnormal and anti-social personality reactions change slowly. It does not behoove us to be discouraged when we find crime rampant and mental disease everywhere. It does seem time for society to organize the study of its own diseases so that personality disorders can be gradually eliminated. In Virginia there are many studies of this kind in process. Also, many of the findings of the past are now being applied by physicians, by politicians, by sociologists, and many types of social workers. There are many organizations whose reason for being is in part at least their desire to readjust the maladjusted individual. A large number of their aims and purposes are enveloped under the broad term of MENTAL HYGIENE.

The future of The Mental Hygiene Society of Virginia depends on its ability to coordinate the driving power of all these organizations which arise from the determination of thinking people to face their difficulties in order to conquer them. These organizations usually have their day, only to fade as the enthusiasm dies, killed by the exaggeration of false hopes that reach fruition not now, but after many tomorrows. The Mental Hygiene Society is so organized that it is controlled by physicians for the very purpose that there will be no "over selling," but that, in cooperation with interested laymen, those things that are known as well as those that promise definite future results can be spread abroad through the State. The Mental Hygiene Society is primarily an Educational Institution, but it should coordinate all

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the energies now directed toward the goal of Mental Health. Its conservatism is its strength, but if it is not backed by an enlightened and interested Medical Profession it will atrophy and die. New ideas and new methods must be given voice and discussed freely in open forum if this society is to act both as a stimulator and moderator of those forces which must be kept alive through the years, and if Virginia is to take its place with the other states now fighting for mental health.

Therefore, it is vital that the physicians of the Medical Society of Virginia continue their support of The Mental Hygiene Society. People outside of the profession are extremely interested in behavior problems and, indeed, there is no form of human ills about which the majority of people know more and about which there is so much misinformation, while within the profession there is a tendency to exclude the mental disorders by pretending that they do not exist. This leads to an inertia and stifles all efforts to obtain medical leadership in this field where it is so greatly needed. The State Mental Hygiene Society is organized on the hope that as the years go on physicians will bcome better educated regarding personality reactions and more interested. This ideal must be realized if the State Mental Hygiene Society is to survive, for it depends directly on the active support of the physicians of the State.

DAVID C. WILSON, M. D.

Woman's Auxiliary to the Medical Society of Virginia

President—MRS. E. LATANE FLANAGAN, Richmond.
President-Elect—MRS. H. W. ROGERS, Norfolk.
Recording Secretary—MRS. HAROLD W. POTTER, Hilton Village.
Corresponding Secretary—MRS. A. S. LILLY, Richmond.
Treasurer—MRS. REUBEN F. SIMMS, Richmond.
Chairman, Press and Publicity—MRS. HENRY M. SNEAD, Petersburg.

Annual Meeting.

The nineteenth annual meeting of the Woman's Auxiliary to the Medical Society of Virginia closed October 8 after a most successful meeting. The attendance was one of the largest in the history of the Auxiliary, and the reports from the various committees and local auxiliaries showed especial interest and progress in all branches of the work.

Mrs. R. E. Mosiman, president of the Woman's Auxiliary to the American Medical Association, was guest speaker at the "Auxiliary Day" luncheon on Tuesday, the 7th. Mrs. Mosiman outlined the three point program of the auxiliary work for the coming year and her message was most inspiring.

The incoming president, Mrs. E. Latane Flanagan, gave her inaugural address at this luncheon, thereby establishing a precedent as heretofore this address has been made at the annual business meeting.

Following is the list of officers of the Auxiliary for 1941-42:

PRESIDENT—Mrs. E. Latane Flanagan, Richmond.
PRESIDENT-ELECT—Mrs. H. W. Rogers, Norfolk.
VICE-PRESIDENTS—Mrs. W. Clyde West, Alexandria; Mrs. Louis Kolipinski, Petersburg; Mrs. Paul Pearson, Aylett; and Mrs. Henry Townsend, Marshall.
RECORDING SECRETARY—Mrs. Harold W. Potter, Hilton Village.
CORRESPONDING SECRETARY—Mrs. A. S. Lilly, Richmond.
TREASURER—Mrs. Reuben Simms, Richmond.
PARLIAMENTARIAN—Mrs. Fletcher J. Wright, Petersburg.
DIRECTORS—Mrs. Southgate Leigh, Norfolk; Mrs. Hawes Campbell, Turpin; Mrs. Henry A. Latane, Alexandria; and Mrs. Griffin W. Holland, Eastville.

STANDING COMMITTEES

ORGANIZATION—Mrs. H. W. Rogers, Norfolk; chairman; Mrs. W. Clyde West, Alexandria; Mrs. Louis Kolipinski, Petersburg; Mrs. Paul Pearson, Aylett; and Mrs. Henry Townsend, Marshall.
PROGRAM AND HEALTH—Mrs. C. E. Holderby, Newport News.
FINANCE—Mrs. Paul Pearson, Aylett.
PUBLIC RELATIONS—Mrs. Henry A. Hornthal, Alexandria.
HYGEIA—Mrs. H. A. Spitler, Middleburg.
REVISIONS—Mrs. J. Walker Jackson, Machipongo.
PRESS AND PUBLICITY—Mrs. Henry M. Snead, Petersburg.
HISTORIAN, ARCHIVES AND RESEARCH—Mrs. William Lett Harris, Norfolk.
EXHIBIT—Mrs. J. L. DeCormis, Accomac.
JANE TODD CRAWFORD MEMORIAL—Mrs. Hawes Campbell, Venter.
LEIGH-HODGES-WRIGHT MEMORIAL BED—Mrs. Fletcher J. Wright, Petersburg.

CANCER CONTROL—Mrs. Albert G. Horton, Norfolk.
BULLETIN—Mrs. F. D. Wilson, Norfolk.
LEGISLATION—Mrs. P. M. Chichester, Richmond.
MEMBERSHIP—Mrs. W. Clyde West, Alexandria.

Appoint Your Publicity Chairman!

As press and publicity chairman for the new year, I am urging that every county auxiliary president appoint her publicity chairman at once to report the new officers, activities, and plans for the coming year. I feel that this is very important in achieving our goal this new year. Our new president is solely dependent on her county auxiliaries and their programs. I am so very anxious to help you pass on your new ideas and to stimulate interest in small groups that really need help.

All members of our organization are laboring for the same results: advancement in health problems; assistance to all groups with that aim in view; and above all education of the public along those lines. Sanitation and defense work are constantly with us and may we help our new president carry out her plans for a banner year! The field is much larger on account of war conditions and I am urging that every member read carefully reports in the MONTHLY for new ideas and in that way help broaden our activities for the coming year.

MRS. H. M. SNEAD,
Chairman, Press and Publicity.

Norfolk Auxiliary.

The Woman's Auxiliary to the Norfolk County Medical Society held its annual meeting on October 13, with the President, Mrs. Albert G. Horton, presiding. Annual reports from officers and committee chairmen were read.

It was announced that the Norfolk Auxiliary won the State prize of five dollars for the best exhibit at the annual meeting held at Virginia Beach. Mrs. William Lett Harris, delegate, gave an interesting report of this meeting.

The Parliamentarian, Mrs. C. C. Smith, installed the new officers (a list of whom was published in the June MONTHLY), and Mrs. Horton presented the gavel to the new president, Mrs. Walter P. Adams. Mrs. Adams announced her committee chairmen for the coming year and the meeting was adjourned.

RUTH PENDLETON HARRISON WILSON,
Publicity Chairman.

Accomac-Northampton Auxiliary.

The Woman's Auxiliary to the Accomac-Northampton Medical Societies held its regular quarterly meeting at the home of Mrs. John B. Mears, Keller, on October 14, with eighteen members and one guest present. The meeting was opened by the president, Mrs. J. L. DeCormis, who gave an account of the State meeting at Virginia Beach. The yearly reports of the various committee chairmen were given, and new officers for 1942 were elected as follows: President, Mrs. E. Holland Trower, Eastville; vice-president and president-elect, Mrs. O. R. Fletcher, Sanford; secretary, Mrs. E. W. P. Downing, Franktown; and treasurer, Mrs. Wm. L. Cosby, Painter.

The annual Christmas gift to the Northampton-Accomac Memorial Hospital was decided upon and a check for linen has been mailed to them.

An auction of food for general funds was held, after which a delightful social hour was enjoyed.

The following physicians' wives were present: Mrs. S. K. Ames, Mrs. R. J. White, Mrs. W. B. Trower, Mrs. J. W. Jackson, Mrs. J. M. Lynch, Mrs. G. W. Holland, Mrs. W. J. Sturgis, Mrs. John W. Robertson, Mrs. J. L. DeCormis, Mrs. E. W. P. Downing, Mrs. Wm. L. Cosby, Mrs. B. N. Mears, Mrs. J. Fred Edmonds, Mrs. H. L. Denoon, Jr., Mrs. W. C. Henderson, Mrs. John B. Mears, Mrs. S. S. Kellam, and Mrs. E. H. Trower.

CATHERINE R. TROWER,
Chairman, Press and Publicity.

Petersburg Auxiliary.

Since October, 1940, the Petersburg Auxiliary has been active in many ways trying to raise money to aid many projects. Some of these are: working in the cancer drive and contributing $2.50; participating in the infantile paralysis drive; helping the Red Cross and Bundles for Britain; contributing $36.50 for the Leigh-Hodges-Wright Memorial Bed; contributing $5.00 for State maintenance fund; signing a pledge of $900.00 to be raised over a period of three years to equip a modern nursery in the new hospital —$200.00 has been paid and $350.00 is due in January; the annual linen shower in February for the Hospital realized about $300.00 in linens and blankets. Two Bingo games realized $90.00 and a rummage sale in December and April netted $155.20. Another rummage sale is being arranged. An agency for an excellent household cleaner and selling a useful article have both netted good returns.

XUM

New officers of the Auxiliary are: Mrs. Munford Yates, president; Mrs. H. M. Snead, president-elect; Mrs. Hilmar Schmidt, recording secretary; and Mrs. E. J. Nixon, corresponding secretary.

MRS. E. L. MCGILL, *President.*

Book Announcements

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receipt. However, we assume no obligation in return for the courtesy of those sending us the same.

Shock Treatment in Psychiatry. A Manual. By LUCIE JESSNER, M.D., Ph.D., Resident Psychiatrist, Baldpate, Georgetown, Mass.; Graduate Assistant in Psychiatry, Massachusetts General Hospital; etc. And V. GERARD RYAN, M.D., Associate Psychiatrist, Elmcrest Manor, Portland, Conn.; Assistant in Psychiatry, Harvard Medical School. Introduction by Harry C. Solomon, M.D., Clinical Professor of Psychiatry, Harvard Medical School; Chief of Therapeutic Research, Boston Psychopathic Hospital. New York. Grune & Stratton, Inc. 1941. xv-149 pages. Cloth. Price $3.50.

William Henry Welch. And The Heroic Age of American Medicine. By SIMON FLEXNER and JAMES THOMAS FLEXNER. 1941. New York. The Viking Press. Octavo of x-539 pages. Cloth. Price $3.75.

Synopsis of the Preparation and Aftercare of Surgical Patients. By HUGH C. ILGENFRITZ, A.B., M.D., Instructor in Surgery, Louisiana State University School of Medicine. And RAWLEY M. PENICK, Jr., Ph.B., M.D., F.A.C.S., Professor of Clinical Surgery, Louisiana State University School of Medicine. With Foreword by Urban Maes, M.D., D.Sc., F.A.C.S., Professor of Surgery and Director of the Department, Louisiana State University School of Medicine. St. Louis. The C. V. Mosby Company. 1941. 532 pages. Cloth. Price $5.00.

The Art and Science of Nutrition. A Textbook on the Theory and Application of Nutrition. By ESTELLE E. HAWLEY, Ph.D., and GRACE CARDEN, B.S., The University of Rochester, School of Medicine and Dentistry, Rochester, N. Y. St. Louis. The C. V. Mosby Company. 1941. 619 pages. With 140 Illustrations including 12 in color. Cloth. Price $3.50

L. Emmett Holt. Pioneer of a Children's Century. By R. L. DUFFUS and L. EMMETT HOLT, JR. Foreword by Edwards A. Park, M.D., Professor of Pediatrics, Johns Hopkins University. D. Appleton-Century Company. New York. 1940. xiv-295 pages. Illustrated. Cloth. Price $3.00.

Cancer of the Face and Mouth. Diagnosis, Treatment, Surgical Repair. By VILRAY P. BLAIR, M.D., SHERWOOD MOORE, M.D., and LOUIS T. BYARS, M.D., St. Louis. The C. V. Mosby Company. St. Louis. 1941. 599 pages. Illustrated. Cloth. Price $10.00.

New and Nonofficial Remedies, 1941, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1941. Cloth. Price, postpaid, $1.50. Pp. 691-LXX Chicago: American Medical Association, 1941.

New and Nonofficial Remedies is the book in which are described the medicinal preparations found by the Council on Pharmacy and Chemistry to be acceptable for the use of physicians. The book is cumulative; each year there are added the descriptions of products accepted during the foregoing year. Those taken off the market or found no longer worthy of continued acceptance are deleted. The book is at that time also revised to bring it up to date with the most recent medical thought. Until recent years the additions and deletions have about balanced. Recently, however, the bulk of the book has been increasing and this year's volume represents the largest book of the more than thirty volumes that have been issued.

This year's new additions include the new sulfanilamide derivative, sulfathiazole, as well as sulfapyridine sodium; antipneumococcic rabit serum of types I, II, III, V, VII and VIII; human convalescent measles serum and human convalescent scarlet fever serum; and staphylococcus antitoxin. The field of endocrinology is represented by the addition of chorionic gonadotropin (follutein). The addition of shark liver oil reflects the search for new sources of vitamins A and D caused by the cutting off of foreign cod liver oil. Other newly accepted preparations are ampules of camphor, digilanid and magnesium trisilicate.

The most extensive revision is represented by the rearrangement and amplification of the chapter, Serums and Vaccines. This chapter is now prefaced by a helpful index, an innovation in N. N. R. The chapter, Vitamins and Vitamin Preparations for Therapeutic and Prophylactic Use has been revised to keep it abreast of the newer developments in this field. Here, too, we find something of an innovation in the systematic use of graphic chemical formulas. It is understood that this practice will be extended to other parts of the book in future editions. Careful perusal will reveal minor revisions in many parts of the book made in the interest of greater clarity and in the effort to keep the book thoroughly up to date.

The Care of The Aged. (Geriatrics) By MALFORD W. THEWLIS, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, R. I.; etc. Third Edition. Entirely Rewritten. St. Louis. The C. V. Mosby Company. 1941. Octavo of 579 pages. With 50 illustrations. Cloth. Price $6.00.

The reviewer began the reading of this book with much enthusiasm for he has a keen interest in the problems of geriatrics. It must be admitted that there are in the book many useful data, but the organization of these data is very loose and there are many statements made which are not in keeping with established principles. To illustrate, on Page 223 under the head of "Arterial Degenerative Disease, Pathology", there appears the following statement: "The arteries and capillaries contain deposits of lime salts and fatty matter. . . ." As far as I know, no pathologist has ever demonstrated such changes in the capillaries of the human body. On Page 383 under the head of "Hyperthyroidism" the statement is made that "the basal metabolic rate may be normal". These are merely isolated errors, but the fact that such errors appear throughout the book very greatly lessens its value.

The author has attempted what does not seem to be justified in a book dealing with geriatrics. He has discussed diseases which exist from the time of childhood up to those characteristic of the aged. To the reviewer it would seem much more desirable for him to confine himself more intently to those diseases peculiar to the aged and the abnormal reaction of the aged to disease, than to attempt such an encyclopedic casual review of so many diseases rarely, if ever, encountered in geriatrics.

It must be admitted that the book is a disappointment, nevertheless, it is a useful volume for there is a good deal of information included in it and, besides, the bibliography following each chapter is very useful.

W. B. P.

Plague On Us. By GEDDES SMITH. New York The Commonwealth Fund. 1941. Octavo of 365 pages. Cloth. Price $3.00.

This book is different. One wonders why some books are written, and wonders still more why they are published. This is not true of *Plague On Us.*

Written by a self-professed layman who heads an important medical and health foundation and who has had unusual opportunities to associate with the leaders of medical and health thought in the country, it is done unusually well. It handles a subject of both scientific and popular interest in an attractive way to both scientists and laymen. It holds the interest of the reader by telling how epidemics have been run down by trained investigators. It also tells of observing practitioners of medicine who were able to work out the epidemiology of certain diseases long before the germs causing those diseases were discovered.

Every physician in active practice and all upperclassmen in medical schools would find it profitable as well as entertaining reading.

The Scientific Book Club selected *Plague On Us* as the principal selection for February.

F. J. W.

Proctology For The General Practitioner. By FREDERICK C. SMITH, M. D., M. Sc. (Med.), F. A. P. S., Formerly Associate in Proctology, Graduate School of Medicine, University of Pennsylvania; Editor, the Weekly Roster and Medical Digest, Philadelphia County Medical Society; Editor, The Medical World; etc. Second Revised Edition. Philadelphia. F. A. Davis Company. 1941. Octavo of xxx-466 pages. Cloth. Price $4.50.

This book is not only an excellent one for the general practitioner, but also one that should be on the shelf of every surgeon and specialist who has any rectal or proctological practice. In addition to covering this subject completely, it discusses several allied subjects, which, although not strictly proctological, are certainly most acceptable in this type of book.

The table of contents is quite elaborate, and studying this affords a good synopsis on proctology.

The one possible adverse criticism is that in some instances many different methods or prescriptions are given without any definite indication as to which is considered to be the best. This tends to confuse the reader and leaves him with no concrete idea as to the treatment of choice. Personal preferences and experiences by the author are often most helpful to the reader.

The volume is profusely illustrated, and the illustrations are well selected, but many of the half-tones are poorly reproduced.

G. W. H.

XUM

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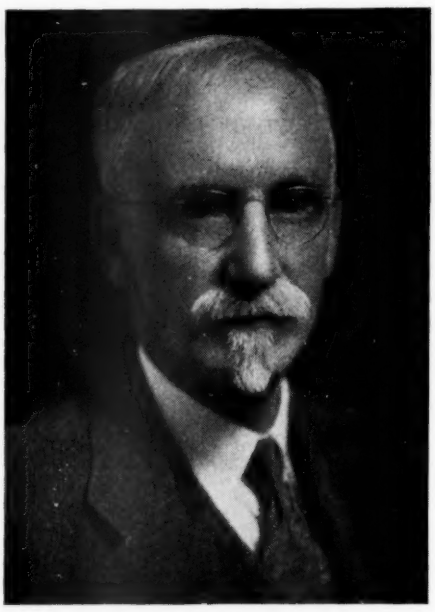
VOL. 68. NOVEMBER, 1941. No. 11

Editorials

The President—Medical Society of Virginia.

IN the matter of getting learning the student may acquire some knowledge from the teacher and the teacher may come to know his students, but the surest part of the whole process is that the students will know the teacher. Even as a young teacher of medicine Dr. Miller was impressive. Of distinguished appearance, immaculately attired, there was a soundness in his work and a gentle courtesy in his bearing which commanded the immediate respect and liking of those who sat on the hard benches in front of him. All that, of course, was the outcropping of heredity and early environment.



ROSHIER WELSH MILLER, M.D.

Roshier Welsh Miller was born January 31, 1870, in Washington, D. C., the son of John Isaac and Martha Smoker Miller. His early education was obtained in the public schools, at Quaker Academy in Newtown, Pennsylvania, and at Shorlidges Academy, of Media, in the same State. He attended the Philadelphia College of Pharmacy and Science, where he had also private tutoring in physics, mathematics, and economics. In 1894 young Roshier Miller came to Richmond and entered the University College of Medicine. A year later he graduated from the School of Pharmacy and, in 1897, from the School of Medicine.

When Dr. Miller had graduated he began to teach and, though still young, he was no novice when he addressed the classes sitting on those hard benches a decade later. In the course of his work with the University College he taught Pharmacy, Chemistry, and Nervous and Mental Disease. After the amalgamation he was at times pressed again into the service of the Pharmacy School in addition to that of the Medical School, and he is now Professor of Materia Medica and Applied Therapeutics in the Medical College of Virginia. These

are things which can be set down by title but, without specification, the knowing will understand the greater demand upon his energies in the faithful attendance upon a large general practice, a demand which never in all his career has he been willing to subordinate to other interests.

To this busy man there was another side, a very practical side, which came out after the fire that destroyed the University College's main building, in 1910. When the ashes were cleared away and the plans for a new building were ready, to Dr. Miller was delegated the job of supervision and consultation with the builders. He did it with the efficiency that marked his professional work. The same thing happened when the home of the Richmond Academy of Medicine was erected. And it is anybody's guess how many more of the public structures which mark the city's growth have had the benefit of his common sense. For a new demand was yet to be made upon his talents.

During the years he labored at his practice another structure, not of brick and mortar, was building. An enlarging circle of his fellow citizens came to acquire a confidence in the sound judgment and in the zealous public spirit of this doctor of medicine. As a result, in 1920, he became a member of the Richmond City School Board, and in 1928 was elected Chairman of that organization, another office he still holds.

Old interests were never submerged by widening responsibilities. Three times he was elected president of the Alumni Association of the Medical College of Virginia. In 1936 he was made president of the Richmond Academy of Medicine. In whatever organization he enlisted, if there was to be appointed a committee requiring both wisdom and tact, Dr. Miller was liable to be named as a member, for to a remarkable degree he has the capacity to work honestly and fearlessly without exciting needless antagonism. Of this sort of thing he has done much for the Medical Society of Virginia. He has done it as he has done other things, quietly, without ostentation, somewhat in the manner of the building of Solomon's temple, where there was neither hammer nor ax nor any tool of iron heard in the house, while it was in building.

As seen by one of those old students of his the characteristics thus briefly sketched make up in essence the quality which the Medical Society of Virginia has recognized in Roshier W. Miller. And in making him its president the membership has confirmed the estimate of his fellow townsmen. It has fittingly bestowed upon him the highest honor Virginia doctors can bestow.

J. H. SMITH.

Three Bears

THREE little bears—not papa, mama and baby bear, but three brother bears—have recently taken up their abode in the courtyard of the hospital of the Medical College of Virginia. For their presence there we have to thank their creator, a well known sculptor of Cambridge, Massachusetts: Anna Hyatt Huntington.

The bears were not placed before the hospital portals to test the faith of those who would enter, as were the lions before the gates of the Palace called Beautiful in *Pilgrim's Progress*. They are not that kind of bear. They were put there to entertain and please us—perhaps to remind us of a few things that *ursus americanus* has meant to *homo sapiens* during a long co-existence on this hemisphere. Man has hunted the bear, baited him, trained him for sport, killed him for ornaments, clothes and food. He has even worshipped him.

Human beings have always turned to a power outside themselves when they were in trouble. Primitive man turned to the supernatural. Sickness was one of his greatest troubles and one of the lest understood. Its origin mystified him. He believed it was imposed from without and that it represented the invasion of the body by malevolent spirits. The animal world about him seemed to him a logical source of these spirits. Naturally certain animals came to be regarded as possessed of powers beyond his reach and comprehension. He deified and worshipped them. In some such way as this the apotheosis of the cow and the serpent came about. By ritual, divination, incantation and exorcism, primitive man tried to bend and direct this spirit world to his own use.

In the Egyptian pantheon the cow-headed goddess, Hathor, was believed to feed infants and cure sterility in women; the cat-headed Ubastet was the goddess of obstetrics, while lion-headed Sekhmet was

XUM

the bone-setter and therapeutist. Among the Greeks and Romans, the snake was the sacred animal of healing. Our present use of the serpent as a symbol of medicine owes its origin to this belief among those ancient but important contributors to the development of our science.

The aborigines in America venerated the bear. He was the beast-god of healing. His bile or blood, when drunk, and his heart, when eaten, made men bold and intrepid. His liver was regarded as good medicine for many ills. His flesh, when consumed in sufficient quantities, was capable of removing the stigma of sterility. No less eminent an authority than the Virginian, William Byrd, II, testified to this.

The bear's more important role, however, was in the use made of him by the medicine man. Clothed in a bearskin, and uttering cries imitative of the bear, the shaman danced about the sick in wild and protracted excitement. By this method the medicine man sought to identify himself with the bear, to create the atmosphere in which the bear would come to heal. In such a mood the medicine man saw, as in a crystal, the hidden nature of the sickness with which he dealt and learned how to expel the evil spirit that was responsible for it. In the mythology of the American Indian, especially as it relates to sickness and its cure, the bear ranks first. Opechancanough, Powhatan and Pocahontas would not have to be told why three bears are brought to a Virginia hospital to be enshrined.

Through the years to come many troubled people—some sick, some friends and relatives of the sick—are destined to pass the threshold of the new hospital of the Medical College of Virginia. Very few of them will know the legends of the bear, but any one of them who stops long enough to catch the spirit of those three playful little Bruins will be grateful. Their mood is at once a tonic, and an antidote to the fear, anxiety and sorrow so apt to plague those whom circumstances send daily through the gates of the hospital.

Pay-Your-Doctor Week

FROM California where many innovations have had their origin comes notice of the planned observance of the fourth annual Pay-Your-Doctor-Week, November 2-8. It is a movement said to be entirely ethical because it is sponsored by the banks of the state. It should enlist public support, say its sponsors, who announce that loan funds are available to those who have yielded to the widespread tendency "to let the doctor wait" until other bills have been settled. "The plight of the country doctor who is often paid with farm products, or a share in next year's crops, has been widely publicized in recent years," it is stated, "while little has been said about the city doctor whose reward for services rendered all too frequently consist of long hours of practice and vague promises of payment sometime in the future."

We wonder how such a plan would thrive in conservative Virginia. At any rate it is music in the profession's ears to know that again a few bouquets are being handed out in kind words to "the members of the healing profession who quietly but relentlessly continue the battle against disease and sickness, particularly at this time when much of the world is engaged in destroying rather than preserving life." For a long time it has seemed to us that the publicity the doctor was getting in the press was often far from sympathetic, and he has felt rather lucky to be allowed to pursue his calling without the drastic changes that were indicated when a certain red cat jumped out of President Roosevelt's bag sometime ago. The war and Uncle Sam's need of organized medicine have given us, at least for the time being, a breathing spell.

Bringing the War Home to the Medical Profession

AS our country approaches nearer and nearer the verge of war, we listen with keen attention to an address such as that delivered by Colonel N. T. Kirk, Commanding Officer of the Walter Reed Hospital, at the Virginia Beach Meeting of the Medical Society of Virginia. Colonel Kirk's address was factual. He showed that the total of the medical personnel of the present armed forces of the United States —130,000—was as large as the whole army several years ago. He stated that 10,500 physicians were needed under the present set-up. The army seems to have secured them. Nearly as many nurses are needed, but this quota is far from filled. A discouraging feature of the army nursing situation is that 40 per cent of nurses fail to re-enlist at the expiration of their term of service. There has long been a recognized shortage of civilian nurses. Something, apparently, has got to be done about the nursing situation.

Colonel Kirk's references to medical students and the army were significant. He stated that in the future students after their second year in medicine would be commissioned second lieutenants in the army and upon graduation would automatically pass to the next higher rank. He did not refer to what appears to us an equally vital question, namely, the question of pre-medical students and the army. Are they to be taken from college or are they to be placed in a deferred class? It seems to us vitally important that the future doctors of the country while still in the period of academic preparation for medicine even now should be given some assurance of the government's intentions to encourage them in their plans to carry through the task they have begun. How else will the future supply of doctors essential in both civilian and army life be guaranteed?

Department of Clinical and Medical Education of the Medical Society of Virginia

University of Virginia Fall Clinic.

The twenty-eighth Postgraduate Clinic given by the University of Virginia Department of Medicine in conjunction with the Department of Clinical and Medical Education of the Medical Society of Virginia will be held November 14-15, 1941, in Charlottesville.

This session will be a symposium on Gastro-Enterology presented by six invited guests of eminence in their respective fields. The diseases of the esophagus will be covered by Dr. Porter P. Vinson, who has written a recent monograph on the subject of his address. Dr. Julian M. Ruffin, who will discuss certain aspects of gastroscopy and colitis, has written several articles on these subjects and has had a wide clinical experience with the use of both the gastroscope and proctoscope. Dr. Chester M. Jones is the A.O.A. guest speaker and has been a frequent contributor to gastro-enterologic literature. He is perhaps best known for his monograph on "Digestive Tract Pain". Dr. T. T. Mackie, a national authority on nutrition, has had a particular interest in the problems of nutrition in gastro-intestinal diseases. The relationship of allergy and the digestive tract will be considered by Dr. Warren Vaughan, the distinguished allergist. Dr. William Osler Abbott has contributed theoretically and practically by his investigations of the G.I. tract with the Abbott-Miller tube.

The complete program follows:

FRIDAY

10:30-11:30	DISEASES OF THE ESOPHAGUS Dr. Porter P. Vinson, Richmond, Va.
11:30-12:30	THE PRESENT STATUS OF GASTROSCOPY Dr. Julian Ruffin, Durham, N. C.
12:30- 1:30	THE CLINICAL SIGNIFICANCE OF "GASTRITIS" Dr. Chester Jones, Boston, Mass.
1:30- 2:30	LUNCH
2:30- 3:30	DEFICIENCY STATES AND THE G. I. TRACT Dr. T. T. Mackie, New York, N. Y.
3:30- 4:30	DIAGNOSIS AND TREATMENT OF AMEBIC DYSENTERY AND CHRONIC IDIOPATHIC ULCERATIVE COLITIS Dr. Julian Ruffin, Durham, N. C.
8:00 P. M.	THE INFLUENCE OF THE NERVOUS SYSTEM ON DIGESTIVE TRACT SYMPTOMS Dr. Chester Jones, Boston, Mass.

SATURDAY

10:00-11:00	GASTRO-INTESTINAL MANIFESTATIONS OF ALLERGY Dr. Warren Vaughan, Richmond, Va.
11:00-12:00	INTESTINAL INTUBATION Dr. Grier Miller, Philadelphia, Pa.
12:00- 1:00	DRUGS AND THE G. I. TRACT Dr. William Osler Abbott, Philadelphia, Pa.
2:30 P. M.	VIRGINIA-LEHIGH FOOTBALL GAME

XUM

Proceedings of Societies

The Southwestern Virginia Medical Society

Held its annual fall meeting in Roanoke on September 25, with the president, Dr. T. K. McKee of Saltville presiding. There was an attendance of about 130 physicians.

At the afternoon session, papers were presented by Dr. E. G. Gill on Laryngectomy (illustrated with motion pictures); Dr. J. V. Gunter on The Pathology of Vitamin Deficiency Diseases; Dr. David S. Garner on Life Insurance Medicine; and Drs. Charles H. Peterson, Allan Barker and Charles Smith on Roentgen Treatment of Cutaneous Epitheliomas. All speakers are of Roanoke.

Following dinner, Dr. T. M. McKee read a paper on Medical Ethics, and Dr. Irvine H. Page, Director of the Lilly Laboratory for Clinical Research, Indianapolis, spoke on The Nature and Treatment of Hypertension.

New officers were elected as follows: President, Dr. W. C. Caudill, Pearisburg; vice-president, Dr. James P. King, Radford; and secretary-treasurer, Dr. David B. Stuart, Roanoke. Drs. T. K. McKee, Saltville, and A. P. Jones, Roanoke, were named members of the executive committee, the other members being Drs. J. G. Cox and W. A. Porter of Hillsville.

Northampton County Medical Society.

Dr. Oscar Swineford of the Department of Medicine of the University of Virginia Hospital was chief speaker at a meeting of the Northampton County Medical Society at their regular quarterly meeting at Eastville on October 13. Dr. Swineford spoke on "Asthma and Heart Disease". Nineteen doctors were present. Dr. John Robertson of Onancock, Dr. Rooker White of Keller, and Drs. Hanson, Bishop, Rademaker, and Fields of Salisbury, Md., were among the visitors to the local Society.

W. C. HENDERSON, *Secretary.*

Lynchburg Academy of Medicine.

The regular meeting of the Academy was held October 13, at 8:00 P. M., at Lynchburg General Hospital, with the president, Dr. Powell Dillard, presiding.

Dr. George Craddock and Dr. J. G. Jantz were elected to membership.

Dr. Allen Barker, Roanoke, presented an illustrated lecture on "The Roentgenological Diagnosis of Gastro-intestinal Hemorrhages". This excellent paper was thoroughly enjoyed and generally discussed by the members present.

C. E. KEEFER, *Secretary.*

Patrick Henry Medical Society.

The regular quarterly meeting of this Society was held at the Henry Hotel, Martinsville, October 3 at 7:00 P. M., at which time a paper on Barbiturate Poisoning was given by Drs. R. H. Walker and F. B. Teague.

Mr. L. O. Key, executive director of the Hospital Service Association of Roanoke, spoke on the work of that Association.

R. H. WALKER, *Secretary.*

Tazewell County Medical Society.

At the September meeting of this Society in Tazewell, Dr. Charles T. St. Clair of Bluefield, W. Va., presented a paper "About Sinuses". This being the annual meeting, the following officers were elected: President, Dr. Rufus Brittain, Jewel Ridge; vice-president, Dr. Henry C. Davis, Bluefield; and secretary-treasurer, Dr. Mary Elizabeth Johnston (re-elected), Tazewell.

Richmond Academy of Medicine.

At the regular meeting of the Academy on October 14, the following program was presented: Congenital Heart Disease with Autopsy Findings by Dr. Wellford C. Reed; A Typical Pain Referred from the Upper Urinary Tract by Dr. T. B. Washington; and Chronic Arthritis by Dr. Elam C. Toone, Jr.

Norfolk County Medical Society.

Dr. H. Page Mauck, Richmond, was the guest speaker before the Norfolk County Medical Society at its meeting on October 13th. His subject was Injuries About the Knee Joint.

News

The Virginia Beach Meeting, Medical Society of Virginia,

October 6-8, was most enjoyable and also interesting from a scientific viewpoint and sessions were well attended. Four hundred and thirty-one doctors registered and many of these were accompanied by their wives. The weather was "against us," the heat being most unseasonable and unreasonable, but at least it gave everyone something to talk about and afforded many an opportunity to enjoy surf bathing. Exhibits, scientific and commercial, were excellent. Several groups of specialists held luncheon or dinner meetings and panel discussions on the last afternoon held the attention of many. At the banquet on the last evening, the golf prizes were awarded, Dr. M. S. Fitchett of Norfolk winning the prize for low gross score, Dr. B. A. Doggett of Norfolk that for low net, and Dr. C. W. Eley, also of Norfolk, for low putting. A floor show followed in the ballroom, with Jim MacWilliams of radio fame as master of ceremonies. Music and dancing specialties featured this with Giovanni, the "world's greatest pickpocket", taking the star part.

There was a good attendance at the business sessions, minutes of which will appear in the December issue of the MONTHLY, as also the membership of committees as named by the president. An invitation from the Roanoke Academy of Medicine was accepted to hold the 1942 meeting in their city. Dr. Roshier W. Miller of Richmond succeeded Dr. Walter B. Martin of Norfolk as president, and Dr. J. M. Emmett of Clifton Forge was named president-elect. Vice-presidents this year are: Dr. James W. Anderson of Norfolk, Dr. Ernest G. Scott of Lynchburg, and Dr. James P. Williams of Richlands. All councilors from the odd numbered districts were re-elected so that there will be no change in that body. Delegates to the American Medical Association are Dr. Walter B. Martin of Norfolk and Dr. Carrington Williams of Richmond, their alternates being Dr. Roshier W. Miller and Dr. J. M. Emmett.

The Virginia Beach meeting is a happy memory; the Roanoke meeting will soon be a reality. Start thinking of and preparing to attend it.

Virginia Radiological Society.

The annual meeting of this society was held at the Cavalier Hotel, Virginia Beach, October 7, with a large percentage of members present. The following officers were re-elected: President, Dr. Wright Clarkson, Petersburg; vice-president, Dr. Clayton Eley, Norfolk; and secretary-treasurer, Dr. C. H. Peterson, Roanoke.

The society sponsored a round table discussion by Dr. W. Osler Abbott of Philadelphia and Dr. George W. Chamberlin of Reading, Pennsylvania, who spoke on the use of the Miller-Abbott tube.

Virginia Urological Society.

The eighth annual meeting of this Society was held during the meeting of the Medical Society of Virginia at the Cavalier Hotel, Virginia Beach, on October 7. Following the annual dinner a program of case reports from the membership was enjoyed.

The following officers were elected to serve during the coming year: President, Dr. Linwood D. Keyser, Roanoke; vice-president, Dr. B. E. Harrell, Norfolk; and secretary-treasurer, Dr. W. W. Koontz, Lynchburg.

The Virginia Pediatric Society

Held its annual luncheon meeting at Virginia Beach on October 8. At that time the following officers were elected for 1941-1942: President, Dr. W. L. Harris of Norfolk; vice-president, Dr. Leta J. White of Petersburg; and secretary-treasurer, Dr. Edwin A. Harper of Lynchburg.

A Panel Discussion was held that afternoon, with Dr. Edwin A. Harper as chairman. Others appointed to take part in the discussions were: Drs. J. M. Bishop, Basil B. Jones, Charles P. Mangum and F. D. Wilson.

The Virginia Obstetrical and Gynecological Society

Had a group luncheon at the Cavalier Hotel, Virginia Beach, October 8, with Dr. James R. Miller of Hartford, Conn., as their guest. Eighteen members were present.

The luncheon was followed by a business meeting at which Dr. Edmund M. Ellerson of Staunton, Dr. J. M. Habel, Jr., of Suffolk, Dr. James Parrish of Portsmouth, Dr. Spotswood Robins and Dr. Edwin Rucker of Richmond were elected to active membership. Dr. James R. Miller of Hartford, Conn., guest of the State Society, was elected to honorary membership.

XUM

The revised Constitution and By-laws were voted upon and adopted. The essential change was the abolition of associate membership. It was agreed that active members could invite guests for the annual spring travel trip by writing the secretary of the Society and having the secretary extend the proposed guest an invitation.

The officers of the Society for the coming year were elected as follows: President, Dr. A. M. Groseclose of Roanoke; vice-president, Dr. H. C. Spalding of Richmond; and secretary-treasurer, Dr. W. C. Winn of Richmond.

Following the business meeting, a panel composed of Dr. C. J. Andrews, chairman; Dr. Bayard Carter, Dr. James R. Miller, Dr. Waverly R. Payne, and Dr. H. H. Ware, Jr., answered questions which had been submitted. Many problems of interest to the general practitioner, as well as to the obstetrician or gynecologist, were discussed.

Southern Medical Association.

Everything is in readiness for the thirty-fifth annual meeting of this Association in St. Louis on November 10-13, and every attending physician is promised much of interest. The clinical sessions begin on the afternoon of the 10th, lasting until the next day at noon, and the nineteen section meetings are from Tuesday noon until Thursday, the closing day. There will be an unusually large number of scientific exhibits, as well as several hobby exhibits.

If you have not made your reservations, write at once to Dr. J. Hoy Sanford, Chairman, 910 Syndicate Trust Building, St. Louis, Missouri.

Married.

Dr. McLemore Birdsong of Charlottesville and Miss Charlotte Clark Spain of Petersburg and Charlottesville, October 18. Dr. Birdsong recently returned after taking special work in Boston and is now associated with the department of pediatrics at the University of Virginia.

Dr. Charles Fleetwood James, Fortress Monroe, and Miss Elizabeth Lavonia Scott of Tallahassee, Fla., and New York, September 21.

Mr. Thomas C. Wood and Dr. Amelia Ester Gardner, class of '40, Medical College of Virginia, and now senior interne at the Medical College of Virginia Hospitals, Richmond, September 20.

Dr. Wiley Lewis Forman, Columbus, Ohio, and Dr. Elizabeth Virden Barnes of Ivy, September 20. Dr. Barnes received her medical degree from the University of Virginia in 1938 and interned at Cleveland City Hospital, Cleveland, Ohio. They are now located in Columbus.

Dr. Arthur Broaddus Gravatt, class of '41, Medical College of Virginia, and Miss Ruth Bailey Latham of Richmond, October 4. Dr. Broaddus is now interning at Marine Hospital, Norfolk.

Dr. Warren T. Vaughan,

Richmond, early in October delivered the convocation address at the opening of the University of Michigan Medical School at Ann Arbor—the school of which his father, the late Dr. Victor C. Vaughan, was for many years dean. At the convocation exercises, Dr. Vaughan was awarded an honorary degree of Master of Science.

News From the Medical College of Virginia.

Dr. Sidney S. Negus, professor of chemistry, attended the Fifteenth Anniversary celebration of the University of Chicago.

Dr. William B. Porter, professor of medicine, has been re-elected a visiting professor on the faculty of the University of Puerto Rico.

Dr. Harry Walker, associate professor of medicine, has been elected to membership in the American Clinical and Climatological Association.

Dr. Lee E. Sutton, Jr., professor of pediatrics, attended the annual meeting of the American Academy of Pediatrics in Boston.

A group of three bears, in stone, by Mrs. Anna Hyatt Huntington, has been received; the setting in the courtyard of the new hospital has almost been completed. This group is the gift to the college of Mrs. Huntington and her husband, Mr. A. M. Huntington. Funds for the landscape treatment were provided by an anonymous friend of the institution.

The college acted as host to the Association of American Medical Colleges, October 27-29, and this was an outstanding occasion. The group can, necessarily, meet but once in a generation in one place and the college and Richmond were very proud to have the association for this meeting.

Alumni of the school of medicine held a well-attended dinner at the Cavalier Hotel during the recent meeting of the Medical Society of Virginia. Dr. T. Dewey Davis, president of the alumni asso-

ciation, presided. Dr. P. St.L. Moncure, who had made local arrangements most acceptably, assisted with the meeting and spoke briefly. Other speakers were Dr. W. L. Harris, member of the Board of Visitors of the college; Dr. Roshier W. Miller, member of the faculty, and President W. T. Sanger.

Alumni of the school of medicine of the Washington, D. C., chapter met October 3 at The Mayflower. Dr. C. C. Coleman, professor of neurological surgery, addressed the group at a luncheon meeting. President W. T. Sanger also attended the meeting and spoke briefly.

Dr. J. M. Northington of Charlotte, North Carolina, represented the college at the inauguration of Dr. John R. Cunningham as president of Davidson College, Davidson, North Carolina, October 16-17.

Dr. Julian L. Rawls.

At the recent meeting of the American Association for the Study of Neoplastic Diseases, held in Washington, D. C., Dr. Rawls of Norfolk was elected president for the ensuing year.

Dr. George C. Snead,

Who has practiced for sometime at Clinchco, has just moved to Radford, where he will be engaged in general practice. His offices are in the Radford Hardware Building.

The Jefferson Medical College of Philadelphia.

The 117th Annual Session of the College was inaugurated September 17, 1941, with Mr. Robert P. Hooper, president of the Board of Trustees, presiding. The Introductory Lecture was delivered by Dr. Martin E. Rehfuss, Professor of Clinical Medicine, his subject being "The Medical Student of Today". Dr. William Harvey Perkins, the seventeenth Dean of The Jefferson Medical College of Philadelphia, was presented to the students and friends of the college by Dr. Randle C. Rosenberger, Professor of Bacteriology and Immunology. Announcement was also made of the appointment of Dr. Perkins as Professor of Preventive Medicine.

The total enrollment is 537. Of this number, 154 are new students, 141 admissions to the First-Year Class, and 13 admissions to the Third-Year Class. The members of the First-Year Class were prepared for medical study in sixty-six different institutions, all having completed four years of college work and received a bachelor's degree before being admitted to the medical course. Geographically, twenty-nine states and two insular possessions are represented, as follows: Alabama, California, Connecticut, Delaware, Idaho, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Washington, West Virginia, Hawaii, and Puerto Rico.

Wanted—Copy of the Original Seal of the Society.

At the meeting of the Medical Society of Virginia in 1873, the Society adopted the seal of the original organization. It was stated that "Besides an appropriate device, it bears the inscription *Sigillum Societatis Medicae Virginiae*, which makes it in every way adapted to the wants of this Society." As the State Society has recently decided to claim organization from 1820, it seems appropriate that the seal used at that time should now be in the possession of this office. If, among your files or books, you have a copy of this seal or know where a copy could be obtained, please communicate with the Secretary's office at 1200 East Clay Street, Richmond.

Dr. John H. Bonner,

For the past two years health officer of the Shenandoah-Page-Warren Health District, has located in Elizabeth City, N. C., where he will be engaged in general practice, with special attention to diseases of the chest. His office is in the Carolina Building.

Spring Graduate Course.

The sixteenth annual Spring Graduate Course in Ophthalmology and Otolaryngology will be given at the Gill Memorial Eye, Ear and Throat Hospital, Roanoke, from April 6 to 11, 1942. Among the guest speakers will be the following:

Dr. George E. Shambaugh, Jr., Chicago.
Dr. George M. Coates, Philadelphia.
Dr. Norton Canfield, New Haven.
Dr. W. E. Grove, Milwaukee.
Dr. Edwin N. Broyles, Baltimore.
Dr. Warren Davis, Philadelphia.
Dr. John R. Richardson, Boston.
Dr. B. Y. Alvis, St. Louis.
Dr. Harvey E. Thorpe, Pittsburgh.
Dr. Wendell L. Hughes, New York.
Dr. Earl L. Burky, Baltimore.
Dr. Edmund B. Spaeth, Philadelphia.
Dr. E. B. Dunphy, Boston.

XUM

American Public Health Association.

At the annual meeting of the Association, the middle of October, Dr. John L. Rice of New York City succeeded Dr. W. S. Leathers of Nashville, Tenn., as president, and Dr. Allen W. Freeman of Johns Hopkins University, Baltimore, a former Virginian, was named president-elect. Dr. I. C. Riggin, State Health Commissioner of Virginia, was chosen as one of the four new councilors. It was decided to hold the 1942 convention in St. Louis.

Dr. Charles F. James,

Class of '38, Medical College of Virginia, recently on the resident staff at Coney Island Hospital, Brooklyn, N. Y., has been ordered to military duty and is now connected with Station Hospital at Fortress Monroe, Va.

Van Meter Prize Award.

The American Association for the Study of Goiter again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held at Atlanta, Georgia, June 1, 2 and 3, 1942, provided essays of sufficient merit are presented in competition. The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten, double spaced copy sent to the Corresponding Secretary, Dr. T. C. Davison, 478 Peachtree Street, Atlanta, Georgia, not later than April 1.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association.

Defense Councils.

According to a joint statement issued by the U. S. Director of the Office of Civilian Defense, F. H. LaGuardia, and the Chairman of the American National Red Cross, Norman H. Davis, State and local defense councils are the official agencies responsible for the coordination of all available resources which may be required for civilian protection in the event of belligerent action. Defense Councils should therefore acquaint themselves with the resources of the local Red Cross Chapters in providing food, clothing, shelter, nursing care, transportation, and other basic necessities and should integrate them into the comprehensive local program. Duplication of trained and experienced personnel and of available supplies of the Red Cross should be avoided except where supplementation is essential to meet the anticipated needs of the community.

Dr. J. D. Kernodle

Resigned as associate in pathology at the Medical College of Virginia, on September 1, to accept the position as director of the Clinical Laboratory at the Wichita Falls Clinic-Hospital, Wichita Falls, Texas.

Dr. Noland M. Canter,

Harrisonburg, was the guest speaker in the first convocation of the current session of Randolph-Macon College, his topic being "Mending Men".

Military News.

The following have been added to the list of

Examining Physicians on Local Boards

Dr. Martin L. Cannon, Lorton.
Dr. Charles R. Duncan, Radford.
Dr. David S. Garner, Roanoke.
Dr. Robert R. Nelson (Col.), Charlottesville.
Dr. Roy G. Parks, Temperanceville.
Dr. Joseph E. Seebert, Lexington.
Dr. Robert Snead, Radford.
Dr. Aubrey S. Willacy (Col.), Arlington.

Medical Advisory Board Member

Dr. E. L. Flanagan, Richmond.

Medical Reserve Officers

The following additional medical reserve corps officers have been ordered to extended active duty by the War Department, Washington, D. C.:

Lt. Charles Fleetwood James, Jr., Appomattox—Fort Monroe.

Lt. Edward Albert Mitchell, Clinchco—Camp Lee.

Lt. Clyde Garvice O'Brien, Appomattox—Fort Story.

For Sale—

Allison nose and throat treatment cabinet, examining table and cuspidor. American metal treatment chair and stool—walnut finish. All in good condition; used very little. Also floor lamps, twentieth century eye cabinet and irrigation can holder. Address: Frederick G. Fox, Lt. Comdr. M.C., U.S.N.R., 1323 LaFayette Boulevard, Norfolk, Va. 47191.

For Sale—

Short wave diatherm. First class condition. Price reasonable. Apply to No. 175, care the MONTHLY. (*Adv.*)

For Sale—

Instruments and other office equipment of doctor recently deceased. Will sacrifice for quick sale. Address "Equipment," care VIRGINIA MEDICAL MONTHLY.

Obituary Record

Dr. Jesse Martin Shackelford,

A former councilor and vice-president of the Medical Society of Virginia, died on October the 2nd, following a paralytic stroke two days previously. He was a native of Henry County and seventy-two years of age. Upon graduation from the former Baltimore Medical College in 1891, he returned to Virginia, and a few years later located in Martinsville. He helped to found the first hospital in Martinsville, which was burned, following which he established the one bearing his name, with which his son has been connected for several years. Dr. Shackelford was surgeon with the Norfolk and Western and the Southern railways and held membership in a number of medical organizations. He is survived by his wife and a son, Dr. John A. Shackelford of Martinsville, by a former marriage.

Resolutions of Sympathy and Esteem on Dr. Shackelford.

"Leaves have their time to fall.
And Flowers to wither at the North winds breath
But thou hast all seasons for thine own—Oh Death".

WHEREAS the Eternal God, who never errs, has in His wisdom, called from the scene of his earthly labors, the spirit of our friend, Dr. Jesse M. Shackelford, whose death occurred October 2nd, 1941, and

WHEREAS it now becomes our melancholy task to lay a wreath of affection and esteem upon the tomb of a friend; a fellow-worker, and a Christian gentleman; one who into the web of life wove a personal character that was courteous, kind-hearted and hospitable; and a public character that was positive and unafraid in its convictions, but chivalrously respectable to others;

THEREFORE BE IT RESOLVED by Patrick Henry Medical Society:

First, To express its deepest and most intense sorrow over the death of Doctor Shackelford, who during his affiliation with our society, and his longer service in the community, always upheld the highest and best traditions of our profession; to tender its condolence to the members of the family of the deceased, and to share the genuine grief of the whole community;

Second, That a copy of this resolution, be sent to the members of the family; to the Medical Society of Virginia; to the *Martinsville Daily Bulletin,* and a copy be spread upon the minutes of our Society.

PATRICK HENRY MEDICAL SOCIETY.

Dr. Isaac Peirce,

Prominent physician of Tazewell and for many years a regular attendant upon the meetings of the Medical Society of Virginia, died September the 18th, after a short illness. Dr. Peirce was seventy-seven years of age and a graduate of Jefferson Medical College, Philadelphia, in 1886. He located in Tazewell in 1888 and had since taken an active part in the professional and civic life of that section. He was a charter member of his county medical society and for many years its secretary. Three children survive him, and a number of relatives, including a brother, Dr. D. E. Peirce of Rose Hill.

Dr. Joseph Frank Slade,

Well known physician of Sussex, died October 14, after an illness of more than a year. He was a native of Prince George County and seventy-nine years of age. Dr. Slade graduated from the Bellevue Hospital Medical College in 1888 and had practiced in Sussex for the past fifty years. He had been a member of the Medical Society of Virginia for forty-seven years. Two sons survive him.

Dr. Thomas Franklin Dodd,

Well known physician of Northern Virginia, died at his home in Alexandria, August 14. He was 62 years of age and a graduate of the Medical College of Virginia in 1908. Dr. Dodd saw service during the World War and was for many years connected with the Veterans Administration. He had been a member of the Medical Society of Virginia for thirty-two years.

Dr. Jacob Adam Wagner

Of Bland, died October 15 after an illness of several months. He was eighty years old and a graduate of the Medical College of Virginia in 1901. Dr. Wagner had been superintendent of the Bland County Schools for the past twenty-four years and was prominent in many other civic affairs. He was formerly a member of the Medical Society of Virginia. Two daughters survive him.

XUM

Dr. James Henry Smoot

Died at his home in Woodstock on September 25. He was seventy-four years of age and received his medical degree from the University of Maryland in 1892. Dr. Smoot was active in civic affairs, for several years a director of the Shenandoah County Bank and Trust Company, and was formerly a member of the Medical Society of Virginia. His daughter and two sisters survive him.

Dr. Dean DeWitt Lewis,

Professor emeritus of surgery at Johns Hopkins Medical School and formerly surgeon-in-chief of the hospital, died at his home in Baltimore on October 9, having been in poor health for some time. He was widely known and was a former president of the American Medical Association.

Dr. John Randolph Tucker Carmichael,

Charlottesville, died August 29, at the age of 29. He was a graduate of the Medical Department of the University of Virginia in 1936, and was a first lieutenant in the Army with headquarters at Ft. George G. Meade, Md., at the time of his death.

Dr. John Woodrow Barnhart,

Clendenin, W. Va., died of cerebral hemorrhage, August 18. He was 28 years of age and a graduate of the Medical College of Virginia in 1939. Dr. Barnhart was a first lieutenant in the Army stationed at Fort Hayes, Ohio.

In Memoriam to Thomas D. Jones, M.D.

After an illness of several months our friend and colleague Dr. Thomas D. Jones died on June 12, 1941. His death was the occasion for a feeling of real loss in the community and of a profound sorrow among his many friends. The confidence and trust he had inspired in those who knew him constitute a fitting memorial to a really fine man.

Dr. Jones graduated in medicine at the Medical College of Virginia in 1906 and after two years' internship at Richmond City Home Hospital and New York Post-Graduate Hospital, he entered general practice and built up a large clientele. This achievement probably satisfied him for a while but his ambition to progress and his love for children finally drove him to give up his practice and devote two years to post-graduate work in Pediatrics in New York and Boston.

When he returned to Richmond he limited his practice almost entirely to children and soon established a sound reputation as a Pediatrician.

In the course of his professional life he received many honors from his colleagues. Among these honors may be mentioned such offices as president of the Richmond Academy of Medicine, president of both the Richmond Pediatric Society and the Virginia Pediatric Society and first vice-president of the Medical Society of Virginia. He was a licentiate of the American Board of Pediatrics and a fellow of the American Academy of Pediatrics. At the time of his death he was an Associate Professor of Pediatrics at the Medical College of Virginia. He was a member of the Phi Beta Pi fraternity, the Manchester Medical Society, the Caduceus Club and a frequent attendant at various hospital staff meetings.

Despite the demands of his large practice and other professional obligations, Dr. Jones always seemed able to find the time and energy to respond to the many calls from civic and religious groups which asked his advice and counsel. His kindliness, availability, and wisdom were more or less taken for granted during his life and their real value probably was not truly appreciated until death brought a clearer realization of their worth.

The Richmond Pediatric Society realizing with sorrow the loss of a valued member and wishing to make a formal record of this realization, therefore hereby resolves:

1. That a copy of this brief record be entered in the permanent minutes of the Society.

2. That a copy be sent to the bereaved family of our late friend, Thomas D. Jones, as a testimonial of our regard and sympathy.

HENRY S. STERN, M.D.
HOWARD URBACH, M.D.
BASIL B. JONES, M.D., *Chairman.*